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TRANSACTIONS

OF THE

TWENTY-EIGHTH SESSION

OF THE

American Institute of Homœopathy,

HELD AT PUT-IN-BAY, O., JUNE 15, 16, 17, AND 18, 1875.

NEW SERIES.

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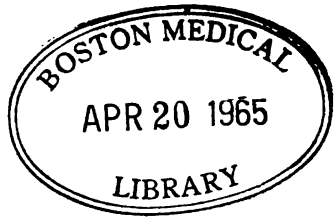
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PREFACE.

THE law of the Institute, restricting the "Publication Committee" to the publication of papers relating to the "special subject" selected by each Bureau, has compelled the committee to omit from this volume a number of papers which were presented to the Institute at the last session.

In addition to this, the small amount of money at their disposal for the publication of this volume, in consequence of the failure of many members to pay their dues, and the necessity to liquidate the debt which had been accumulating for several years, has obliged them to omit much additional matter, principally the discussions, in order to keep the cost of the volume within the means of the Institute for the year 1875.

CARROLL DUNHAM, *President*,
E. C. FRANKLIN, *Vice-President*,
ROBT. J. MCCLATCHEY, *Secretary*,
E. M. KELLOGG, *Treasurer*,
Publication Committee.

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TWENTY-EIGHTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME II. NUMBER V.

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XLIII.

PROCEEDINGS

OF THE

TWENTY-EIGHTH SESSION

OF

THE AMERICAN INSTITUTE OF HOMŒOPATHY.

HELD AT PUT-IN-BAY, O., JUNE 15, 16, 17, 18, 1875.

FIRST DAY.

MORNING SESSION.

THE Institute convened in the Hall of the Beebe House, at 9 o'clock A.M., and was called to order by the Vice-President, L. E. OBER, M.D., of La Crosse, Wis., who addressed the assemblage as follows:

Fellow-Members of the American Institute of Homœopathy: The hour has now arrived for the opening of the twenty-eighth session of this Institute. It is with great regret I announce to you the absence of our President, Dr. William H. Holcombe, of New Orleans, La., the gentleman who, by our suffrages of last year, we honored with the highest office in the gift of this honorable body. No doubt we all regret the unpropitious circumstances that have transpired to prevent his being with us on this occasion, and hope that at many of our future meetings we may be benefited by his presence and his counsel.

A short time since I received a communication from Dr.

Holcombe, in which he informed me that the climate of his residence at that time had so impaired his health that he was obliged to return immediately to New Orleans, and that he would not be able to return to attend the sessions of the Institute. It therefore becomes my duty on this occasion to take the place of the President-elect, and to preside at the meeting. In so doing, I assure you I very much regret the circumstances that have contributed to this result. It is with much diffidence I assume the trying and important duties of the position. The old adage that "it is hard to step into another man's shoes," is quite true in this case; and on account of taking the place of one more than my peer, and following one whose success as a presiding officer was so generally acknowledged, I sincerely crave your indulgence and co-operation, while I strive to the utmost of my ability to preside over your deliberations patiently and impartially.

I trust that our coming together will prove both pleasant and profitable to us as individuals, and contribute much toward the furtherance of that great cause which we have the honor and the right to assist.

I shall add no more words now. President Holcombe has forwarded to the Secretary his Opening Address, which that officer will now read.

THE SECRETARY then read the President's Address on the *Historical Significance of Homœopathy*, as follows:

ANNUAL ADDRESS.

Ladies and Gentlemen, and Members of the American Institute of Homœopathy: We live in an age of assemblies, conventions, academies, and institutes. They are the signs, the products, and the promoters of an advancing civilization. They involve and imply the development of reason, the pursuit of knowledge, the comparison of facts, the conflict of ideas, and the evolution of science. We who live in the present century, "in the foremost files of time," can scarcely realize by what slow and difficult steps men became associated together for specific purposes. The relative capacity for *organized effort* determines the superiority of one race or people over another. To organized effort mainly

do we owe our present grade of attainment, the multiplicity of our pursuits, the minute subdivision of our labors, the perfection of our methods and the grandeur of our results.

The first rude consultations of men were no doubt upon questions of war and government. Next in order came associations for religious worship and instruction. It was a long step in advance when men gathered together to hear the songs of the past or to listen to the wisdom of the sage. The ancient world had no organizations beyond the council of war, the forum of debate, the mimic life of the stage and the lecture-room of the philosopher. Our great institutions for benevolent and charitable purposes, for educational improvement, for the cultivation of arts and sciences, and for the promotion of useful knowledge, were unknown to Greek or Roman customs, and are the triumphs of mediæval and modern life. So thoroughly organized for definite purposes is modern thought, that the annual meetings of Christendom cover every department of human knowledge and every interest in human life, from the little association of farmers to promote the growth of wool, to the international congress which aims to secure the peace of the world; from the railroad convention which regulates the price of freight, to the astronomical society which penetrates the laws that bind the pieces of the universe together and displays the glories of that cosmos which the poet has entitled "the dream of God."

Foremost in utility to mankind are the associations whose object is the study, the prevention and the cure of disease. And among these associations that one is unquestionably the greatest and the most beneficent, in intention if not in execution, which contemplates the most philosophical advance in theory and the most substantial reform in practice. We are confident that posterity will accord that honorable distinction to the American Institute of Homœopathy, which holds its twenty-eighth annual session in this place and on this day; an Association representing in medicine the faith of five thousand physicians and the choice of several millions of patrons.

When we consider the objects of this Institute,—to defend, perfect and perpetuate the principles of homœopathy, the greatest reform ever made in medicine, a system which is founded

upon a law of nature newly discovered, which elaborates a new Materia Medica in a novel and rational manner, which reduces the amount and the dangers of medication to the minimum, which shortens the duration and mitigates the severity of all curable diseases, which brings even to surgery and obstetrics means of amelioration never known before, and which promises not only to cure diseases promptly and thoroughly, but to eradicate from the race the constitutional germs of disease, thus purifying and renovating our common humanity for healthier and nobler futures,—one would suppose that it would surely enlist the sympathy and support of the entire profession, and the respect and even the admiration of mankind.

Such indeed *is* the fact within the highly respectable but limited sphere in which the lofty claims of homœopathy are fully recognized. The great world, however, regards this assembly and all it represents and symbolizes, with stolid indifference or with simple curiosity. But the mass of the medical profession, the party whose business it is to acquaint themselves with our meaning and our mission, is still utterly ignorant of both, and maintains towards us a skeptical, scoffing, unfriendly and hostile attitude. The magnates of the medical world dispute our premises and deride our conclusions. They mock our theories and disbelieve the results of our practice. In their blind hatred of the system, they carry their professional ostracism into the social sphere, and malign the character and motives of those who would show them a clearer and a better way.

What is the meaning of all this? In matters of pure science, determinable only by observation and experiment, why this partisan feeling, akin to political or religious prejudice? The meaning is this, that the contest between allopathy and homœopathy is a great conflict of ideas. Ideas govern the world. Erroneous ideas are eradicated with much difficulty. Great and true ideas are always of slow and painful birth and tardy growth. A conflict of ideas is a battle or series of battles, and presents all the meannesses, the cunning, the stratagems, the bitterness and sometimes the violence of actual war. Remember with what persecutions and even bloodshed the priestly caste has resisted the march of scientific thought. Men have been burned at the

stake for believing in the unity of God, the central position of the sun, the rotundity of the earth and the plurality of worlds. Notwithstanding all these things look strange and inexcusable to us from our present standpoint, we are no readier than our ancestors to give any new idea a hospitable reception, especially if it clashes with our preconceived opinions, our religious prejudices, the dogmas of our school or the evidence of our senses. Every great idea indeed is a warrior, destined to conquer or be conquered, and fighting his way to empire with the sword of truth.

Ideas which incur the persistent neglect, contempt, animosity or persecution of the age in which they are presented, belong to one of two classes. Those of the first class are fundamentally false, erroneous in theory, dangerous in practice, kept alive for a time by the enthusiastic zeal of friends, but slowly dying out from inherent want of vitality, and from the pressure of hostile influences brought to bear against them. Such were the many forms of religious, philosophical and medical doctrine which have illustrated the eccentricities and the vagaries of the human mind. Among these ephemera, it is the fashion for the allopathic school to class our beloved homœopathy, and its prophets continue to predict that the next generation will witness the burial of the last adherent of the infinitesimal heresy.

On the other hand, the greatest ideas are not received, but are rejected, despised, persecuted and resisted, when the ground has not been prepared for their reception, when they are sprung prematurely upon an unappreciative world; for ideas, like plants, have to be furnished with proper soil and suitable culture. The things of to-day are the effects of causes which have run through all antecedent generations. We have detected the subtle threads which connect the barons of England exacting the Magna Charta from King John with our own signers of the Declaration of Independence, and the rude experiments of Roger Bacon in his cell with the splendid manipulations of Faraday in the Royal Institution of Great Britain. The laws of development and evolution are inflexible; and if anything comes before its time, it is an abortion or a premature birth, which must struggle hard for existence and perhaps perish in the struggle.

Homœopathy too has its historical significance; antecedents which make it a possibility, and surroundings which make it a success. What are they?

The fundamental ideas of homœopathy are these: Diseases are cured by remedies which produce similar symptoms in the diseased parts, and that cures may be effected with doses entirely inappreciable by our senses. The uninstructed mind immediately and instinctively revolts against both these propositions, as the child revolts against the idea that the world is round or that the sun is stationary in the heavens.

An allopathic physician might go among the Chinese, the Esquimaux, or the tribes of Africa, and command the respect and confidence of the people. His pills and powders and potions, of different tastes and colors, producing strong, speedy and sensible effects upon the human body, would be regarded with favor and trust. His explanation that he intended to counteract the disease by giving something exactly opposed to it, would be satisfactory to the humblest understanding, and would inspire the faith and hope of the patient and his friends. A homœopathic physician would be an enigma to these people. His therapeutic armament, his little pocket drug store, would excite their wonder or contempt. His principle of giving something which produced a similar disease, if he could explain it to them at all, would arouse their suspicions or fears; and if he prevailed with them to try his plan, and the patient recovered, they would think that he had acquired the art of concentrating the essence of medicines into an exceedingly small compass, or if not capable of that stretch of thought, seeing no means employed adequate to the end attained, they would accuse him of witchcraft, or sorcery, or of some occult spiritual power.

Passing from this extreme of barbarism to the other end of the scale,—into the most refined and cultivated family circle, where homœopathy is a faith, a principle and a power,—what do we see? The allopathic physician is here regarded with suspicion and distrust. His theories are believed to be vague, contradictory or incapable of proof; his strong medicines are known to be uncertain, dangerous, and frequently mortal in their effects. The homœopathist is welcomed as a far

more intelligent and reliable interpreter of nature. His principle has been verified over and over until its truth is recognized as a trite and obvious thing. The prompt and happy effects of infinitesimals are not attributed to sorcery or magnetism, or to secretly concentrated allopathy, but to simple natural laws, as comprehensible as the action of nature's infinitesimals, heat, light and electricity, on the growth of the vegetable kingdom.

Now what is the reason of this vast difference in thought, opinion and practice? There is nothing unnatural about it or miraculous in it. There are no gaps, no interspaces, no wild leaps in the process of development. The missing links in nature are simply the undiscovered ones. If in one age of the world homœopathy and a belief in it are impossibilities, and in a succeeding age homœopathy is not only discoverable but acceptable and accepted, there have been causes at work to produce the change, which it is exceedingly interesting and instructive to trace.

Our subject belongs to that department of the philosophy of history known as the history of opinion and discovery. The historical significance of any one science or discovery is a matter of vast extent, involving as it does innumerable antecedent and collateral causes and influences. It will be sufficient in our limited space to consider briefly four great causes which have led to the discovery or development of homœopathy and prepared the public and professional mind for the partial acceptance it has already received.

These causes are:

1st. The growth of the critical spirit, insuring free discussion and inquiry, and bringing about greater flexibility of thought and readier acceptance of new ideas.

2d. The development of experimental philosophy and the consequent elevation of *fact* entirely above theory and speculation.

3d. The discovery of the microscope and its application to anatomical researches.

4th. The wonderful advances made in the last half century in the laws and phenomena of the imponderable and elementary forces of nature.

1st. It is well known that countries where civil liberty is imperfect, where freedom of thought and action are repressed, and where there are not two parties on every subject each equally protected by the law, are stationary and unprogressive. History is full of the persecutions of those who have advanced ideas which were repugnant to the unthinking but dominant majority. Galileo, Harvey, Jenner, Fulton, and Hahnemann himself, are stereotyped illustrations. But to form a vivid conception of the difficulties which have been overcome, imagine the entire medical profession to be composed of such men as Simpson, Holmes, Hooker and the editors of the *London Lancet*. With what scorn and even violence would such bigots, a few hundred years ago when they had the power, have repressed the doctrine of "*similia similibus*" and the use of infinitesimal doses. Homœopathy would have been strangled in the birth by these watchful guardians of their own opinions and interests. Indeed it is probable that the homœopathic idea *has* been frequently prevented from taking form and shape and coming to the light. I will give you a curious and instructive example.

Less than two hundred years ago, Dr. John Greenfield, a London physician, struck upon the fundamental principle of homœopathy, and made some astonishing cures with Cantharides in cases presenting the very symptoms which are produced in the healthy man by that substance. He was indicted, arrested, and tried by the censors of the College of Physicians, for using a dangerous drug on a dangerous principle, in opposition to the teachings and usages of the faculty. He was convicted, imprisoned like a common felon, and persecuted by his enemies to his total ruin.

Listen to his earnest and dignified complaint.

"This is my case: I thought it necessary to premise this statement, lest, from the high character of my adversaries, the public might think unjustly of me, being misled and judging me simply from this mark of infamy and because I have been thus publicly branded. For what are the circumstances? The censors of this illustrious College shut up in prison not a stranger, but a Doctor of Medicine, and a member of the same College; a thing that from the building either of the prison or the College

had not been seen or heard of; which I confess was a sufficient evidence of guilt to those who look only at the outside of things. For what else could the unlearned gather from these proceedings than that there must be the most just cause for such great disgrace; for that surely such learned and renowned members of the medical profession would be unwilling to expose a member, and with him the whole College to such public contempt, unless he had been guilty of some great and horrid crime. The whole crime I have committed is the prescription of Cantharides!"

This spirit, which would arrest and punish the first deviation from the established routine of doctrine and practice, exists to-day, but it is impotent like the old lion, decrepid and helpless, with teeth and claws extracted. The spirit of liberty is abroad. Research and analysis are respected and applauded. The day when all things are to become *new* is approaching. Uniformity of belief, the dream of the old conservatives, is no longer considered desirable or even possible. Flexibility of thought, openness to conviction, disdain of conventional restraints, and an independent individualism, are becoming the characteristics of the age. In such free and prolific soil and under such genial influences, homœopathy takes root and flourishes; and it flourishes most in this great and happy land, where nature unrolls her richest stores, and where man has upreared his noblest standard.

Yes, my friends, a thousand causes conspire to one event. Each century is the child and heir of the preceding one. And all the disasters, repulses, reverses and persecutions of men in search of truth have been productive of good, by exciting a healthy reaction in the public mind. When Bunyan languished in his prison, when Bruno perished at the stake, when Hampden resisted his tax, when the Mayflower breasted the storms of the Atlantic, when Wesley was silenced by the magistrates for preaching in the open fields, when Hahnemann was driven from Leipsic by the apothecaries, when the Bostonians threw the tea into the harbor, and when Patrick Henry was upbraided for treason in the Virginia Assembly, the spirits of liberty and progress were moving upon the earth, weaving with invisible hands the golden chains of history, and leading us step by step to the present day when we can stand in the full blaze of civil

freedom and advocate whatever doctrines we please, answerable only to our own consciences and to truth, and appealing, not in vain, to the intelligence and candor of an enlightened public.

2d. When I stated that the development of *experimental philosophy* was a necessary antecedent to the discovery and acceptance of homœopathy, I asserted a truth of great significance. Experimentation is altogether a modern process. The ancients, who were keen observers and good describers of facts, knew nothing of experiment in our sense of the term. They observed and speculated; the moderns observe and experiment. To experiment is to operate upon a substance in such a manner as to discover or elicit some fact or facts about it unknown before. This method began with the great revival of thought in Europe after the long night of the dark ages. Experiment is the key to the differences between ancient and modern philosophy. This method of investigating and as it were interrogating and cross-examining nature is the cause of our rapid strides in physics and chemistry, and of the vast and ever-increasing development of arts and sciences.

Homœopathy is the child of philosophical experiment. Hahnemann was himself a chemist as well as a physician. He was fond of the laboratory and of the practical study of nature. Dissatisfied with the current theories of drug action, he experimented boldly upon himself, when in perfect health, with Peruvian bark. It was one of the grandest and most fruitful experiments ever made; greater than those which identified the name of Priestley with oxygen and Franklin with electricity. The bark produced on him an attack of ague and fever. It was a new fact, unknown, undiscovered before. Peruvian bark cures ague and fever,—an old fact. It causes ague and fever,—the new fact, discovered by experiment. Put the two facts together, compare them, reason from them, and you have a *new idea*. It cures ague and fever *because* it has the power to produce it. "*Similia similibus curantur*" is uttered! homœopathy is born! and a thousand hitherto detached and lawless facts are drawn together by a new thought and reduced to a common law. Light breaks in, a new system is inaugurated, and the world is wiser and better for the change.

Such was the glorious beginning of homœopathy, not in the dreams of the poet, the speculations of the philosopher or the visions of the saint, but in the bold experiment upon his own body by a determined and sagacious physician. Such an achievement was impossible in any other age but ours, for the world was not ripe for it until experimentation became the ruling thought, principle and habit in the scientific mind. From that day to this experiment on the healthy system has been the guide and key to the construction of the homœopathic Materia Medica. Something has been learned from accidental poisonings, something from empirical observations on the sick; but true homœopathy depends for its scientific precision upon the discovery of new facts by experiment, the great instrument of modern thought.

The old school is imitating our method in a crude and bungling manner. Their physicians, catching something of the general spirit of the age, must experiment also; but their experiments are oftener made upon the helpless sick than upon their own systems. When they do attempt a proving of a drug, they interrogate nature from their own theoretic standpoint, ask leading questions and learn nothing, or cannot utilize what they learn. They seem to say to every new substance, "Are you a purgative, or an emetic, or a tonic, or an astringent, or an anodyne?" They cannot comprehend the homœopath when he commands the new drug to stand forth and tell its own story, however long it may be, unprompted and unassisted, and records every morbid effect it produces in each one of the organs and tissues of the human body from head to foot, and yet this last is the only true and scientific method. We do not get purgatives, or tonics, or anodynes, in that way, to classify and arrange on our theoretic shelves; but we get living pictures, photographs of the ever-shifting combinations of disease, whose counterparts or duplicates are found in suffering humanity.

The cultivation of experimental philosophy prepared the way not only for the discovery of homœopathy by the profession, but for its reception by the masses. Experiment has brought to light so many new things, has exploded so many old errors, destroyed so many superstitions, excited so much thoughtful activity, that the human mind has been delivered from the incubus

of old dogmas and the tyranny of old methods. When the philosopher experiments to find the truth, the people become ready to take things only on trial. Everything must have its hearing, however rough and imperfect, before the popular tribunal. To the natural curiosity of man is now added the deeprooted sentiment that nothing should be prejudged, but all things put to the test of experience, and stand or fall according to their own deserts. Allopathic physicians can only silence their own patients by assuring them that the profession has examined homœopathy and found it a delusion or a fraud. The French Academy even accorded it a public mock trial. The people are now giving it a fuller and a fairer hearing, and all men may see from the faces of the jury that the final verdict will be in its favor.

3d. The homœopathic law having been established, and a new Materia Medica created by novel and fruitful experiments, the next difficulty to both physicians and laymen was the homœopathic *dose*. A very minute dose was found, *also by experiment*, to be more efficacious than a merely small dose; and it was afterward discovered that an infinitesimal quantity of the drug, chosen on the homœopathic principle, was, in some cases, not more *powerful* but more *curative* than the very minute but still appreciable doses. This was a very puzzling fact, and the difficulty was to realize the existence of any medicine at all after it had been so comminuted as to elude the evidence of the senses and transcend the possibility of chemical analysis.

The compound microscope and its applications have made the homœopathic dose comprehensible by the human mind. I may safely say that previous to the discovery of that wonderful instrument, the conception of an infinitesimal dose would have been an impossibility. The microscope has done for the infinitely minute side of nature what the telescope has done for the infinitely vast and remote. It has revealed a new world to us, and enabled us to realize what a universe lies beyond the reach of our senses or the tests of our chemical art.

The solar microscope has familiarized even the uneducated masses with the astounding things to be seen in a single drop of water.

"Take any drop of water," says Prof. Rymer Jones, "from

the stagnant pools around us, from our rivers, our lakes, or from the vast ocean itself, and place it under the microscope. You will find therein *countless* living beings moving in all directions with considerable swiftness, apparently gifted with sagacity, for they really elude each other in the active dance they keep up. Increase the power of your glasses and you will see, inhabiting the same drop, other animals, compared to which the former were elephantine in their dimensions, equally vivacious and equally gifted."

If we could isolate one of these infinitesimal living creatures, and subject it to further microscopic analysis, we would not terminate but only multiply the mystery and the wonder.

Take another illustration, from the crystalline lens of the eye of the codfish. This minute pellucid object is found by the microscope to consist of about five million distinct fibres. These fibres are furnished with teeth like those of a watch-wheel, and the teeth of the adjacent fibres lock into each other. Now there are sixty-two thousand five hundred millions of these teeth. Each tooth has six surfaces which come into contact with the corresponding surfaces of the adjacent teeth, so that the number of touching surfaces is three hundred and sixty-five thousand millions.

Think of this extraordinary fact; realize it in your imagination; reflect that each of these surfaces is a space, a reality, a mechanical power, and you can readily conceive that the atom of the highest homœopathic attenuation retains form, and substance, and properties, and has its part to play in the mechanism of cure.

This is still more comprehensible when we remember that our own nervous tissues and blood-globules are just as inconceivably minute as the lens of the codfish, and that our homœopathic processes simply bring the medicine into a state of corresponding minuteness. The crude substances of allopathy never get into these secret recesses, these molecular and atomic spheres of vitality, no more than a steamship can get from the sea into the little mountain rill away up near the snow line.

Hear what Hughes Bennett says of this infinitesimal anatomy, in which homœopathy works its wonders:

"The intricate molecule has never been reached even with the highest magnifying powers. In the same manner that the astronomer with his telescope resolves nebulæ into clusters of stars, and still sees other nebulæ beyond them, at present unresolvable, so the histologist with his microscope magnifies molecules into granules, and sees further molecules come constantly into view."

4th. We classify and arrange our knowledge according to the likeness or unlikeness of things. We are enabled to know, recognize and classify a new fact or experience by comparing it with something we have acquired of a similar or corresponding nature. The modern discoveries in physical science thus help us not only to realize the existence and power of the infinitesimal atoms of medicine, but they give us some intimation of how they act. Whether the corpuscular or undulatory theories of the imponderable agents be accepted, one thing is certain, that the operations of nature, the beginnings of life, the atomic changes of form, all take place on the infinitesimal arena. When we are told that light determines the organization of plants, and that the wave-lengths of a certain light are many millionths of a single inch, and that thousands of millions of vibrations of that wave of light occur in a single second, we know every individual vibration of that infinitesimal wave of light contributes its share to the grand total result, the growth of the vegetable kingdom, and that not one vibration could be changed or lost without affecting the first chemical and vital issue. From these facts we easily pass to the corresponding idea that the homœopathic atom may start or excite infinitesimal movements of nutrition, which shall quietly and imperceptibly effect organic changes, of which we see only the result.

One of the greatest modern philosophers, La Place, looking with comprehensive spirit on the wonders of animal life, exclaimed:

"Beyond the limits of this visible anatomy commences another anatomy, whose phenomena we cannot perceive; beyond the limits of this external physiology of forces, action, and motion, exists another physiology, whose principles, effects, and laws it is of greater importance to know."

This invisible anatomy and physiology constitute the field

where homœopathy works with its invisible atoms and its invisible operations, but its sure and perceptible result. Within the allopathic world of wonders there is another world still more wonderful; within the molecule of old medicine lies a still more energetic atom opposite in its action. It is not surprising that men, living for ages with no scientific methods or instruments, did not penetrate into this mysterious sphere. It lay undiscovered, because the means of its discovery had not been invented. Homœopathy is the new continent, the western hemisphere of medicine, and Hahnemann was its Columbus.

Seeing thus, ladies and gentlemen, that homœopathy is the last result and product of the causes which underlie the evolution of the human mind itself, we can have no difficulty in predicting the future. The conflict of ideas is irrepressible. Fluctuations may occur, truces may be made, desertions from one side to the other may take place, but the conflict will go on, and the fittest will survive. It is the old story which has been enacted upon the theatre of the world a thousand times in a thousand forms. One form comes to me now, a boyish memory, which, call it metaphor, or allegory, or prophecy, I will sketch for the moral it contains.

The Persian in his day had the richest and vastest empire in the world. He boasted that his laws were unalterable, and his wisdom so great that his opinions were never changed. A small but sturdy people arose on his borders, the Greek, subtle and supple, and great students of nature, full of curiosity, and credulous of new things. With tents that covered the land, and sails that whitened the sea, and with mingled arrogance and contempt, the Persian came on to annihilate his insignificant foe. The result was Salamis and Marathon. And in due process of time, when the causes which secretly undermine one system of things and secretly build up another had done their perfect work, as was ordained of God, the Greek arose in his turn, overcame the empire of his enemy without sheathing his sword, trampled the unalterable laws in the dust, and divided out all his provinces among the followers of his camp.

Members of the Institute, for the year which has rolled by since last we met, I have the usual record to make of quiet,

gradual and certain progress. Our numbers have increased, our literature has been enlarged, our schools have flourished, and we have grown steadily in the good will and confidence of the public. Let this meeting give a new impetus to the cause we advocate. Though much has been accomplished, much remains. There is old ground to be abandoned, new positions to be attained. Let us meet every question in the liberal spirit which becomes us. Truth is our object; progress our watchword.

"Not in vain the distance beacons; forward, forward let us range.
Let the great world spin forever down the ringing grooves of change."

A. E. SMALL, M.D., of Chicago, then offered the following resolution:

Resolved, That the thanks of the American Institute of Homœopathy be and they are hereby tendered Dr. William H. Holcombe, for the interesting and instructive address presented at this meeting, through the General Secretary.

Adopted.

B. W. JAMES, M.D., of Philadelphia, moved that the President's address be referred to the Committee of Publication, which was agreed to.

S. R. BECKWITH, M.D., of Cincinnati: I move you, Mr. Chairman, that the *order of business* prepared by the Executive Committee for conducting the business of this session be declared the order of business, subject to such modifications as the Institute may hereafter see fit to make; and further, that the order of business as laid down in the Transactions, and following the By-laws, be suspended, in so far as it may conflict with the order of business prepared by the committee.

Agreed to.

THE VICE-PRESIDENT then announced the following appointments:

COMMITTEE OF CREDENTIALS.

G. H. WILSON, M.D., West Meriden, Conn.
JAMES B. WOOD, M.D., West Chester, Pa.
S. P. HEDGES, M.D., Chicago, Ill.

AUDITING COMMITTEE.

O. S. SANDERS, M.D., Boston, Mass.
E. V. VAN NORMAN, M.D., Springfield, O.
J. E. JAMES, M.D., Philadelphia, Pa.

REPORT OF THE COMMITTEE OF PUBLICATION.

R. J. MCCLATCHEY, M.D., of Philadelphia, *General Secretary*, presented the following communication, being the report of the Committee of Publication:

To the Members of the American Institute of Homœopathy: Your committee respectfully report the publication of the Transactions of the Twenty-seventh Session of the Institute, in a handsome volume of 880 pages. The valuable papers presented by the Committee on Climatology were omitted because of the bulk of the volume, and because it was thought best to incorporate these papers with the report and papers of the newly created Bureau of General Sanitary Science and Climatology. A number of other papers were omitted. While your committee greatly regret the delay that attended the publication of this volume, they beg to assure you that it was because of circumstances beyond their control. Inasmuch, however, as the great desire is to have the Proceedings in the hands of members as soon after the session as possible, and as the object of publication is in a measure defeated by great delay, it is the intention of the Executive Committee to go to press at an early day with the Transactions of the present session, and issue the volume with as much expedition as possible. Notice is therefore given, that the rules of the Institute will be rigidly adhered to, and papers and reports not in the hands of the General Secretary within thirty days after the close of the session will be excluded from the volume.

Respectfully submitted on behalf of the Committee of Publication,

ROBERT J. MCCLATCHEY,
General Secretary.

REPORT OF THE TREASURER.

E. M. KELLOGG, M.D., of New York, *Treasurer*, then submitted his annual report, which was referred to the Auditing Committee. (Section I, Art. XLIV.)

THE TREASURER also made the following statement: Mr. President, I wish to state to the Institute that the volume of Transactions issued this year has been unusually large, the largest, in fact, we have ever had, and the cost has been proportionately greater than usual. There is still quite a heavy balance due the printers of this volume. The expenses of the past year

have been unusually heavy, not only on account of the large size of the volume issued, but also because of the bills of the Committee on Legislation and the Committee on The World's Homœopathic Convention. With these increased expenses there has been a decrease of receipts. Physicians in common with other persons have felt the financial panic, and in consequence have not responded to the calls of the Treasurer as promptly as usual.

NECROLOGICAL REPORT.

HENRY D. PAINE, M.D., of New York City, *Necrologist*, being unavoidably absent, a synopsis of his report was read by the General Secretary, and at his instance the report as a whole was accepted and referred to the Committee on Publication. (Section I, Art. XLVI.)

SECTIONAL MEETINGS.

J. G. GILCHRIST, M.D., of Tidioute, Pa., offered the following resolution, which was adopted:

Resolved, That *Sectional Meetings* of any bureau may be held at the call of the chairman of that bureau, provided such meetings are not held during the sittings of the Institute.

BOTANICAL COMMITTEE.

BUSHROD W. JAMES, M.D., of Philadelphia, moved, and it was agreed to, that a Botanical Committee be appointed, to consist of three members, whose duty it shall be to collect and present specimens of medicinal plants of the locality, and make brief reports thereon, at the opening of each morning session.

THE VICE-PRESIDENT then appointed the following gentlemen to constitute said committee:

T. F. ALLEN, M.D., New York.
A. R. THOMAS, M.D., Philadelphia.
WILLIAM VON GOTTSCHALK, M.D., Providence, R. I.

J. R. FLOWERS, M.D., of Columbus, O., under a suspension of the rules, offered the following preamble and resolution:

WHEREAS, The Allopathic State Medical Association of Ohio is now in session at Put-in-Bay, and

WHEREAS, The Homœopathic School of Medicine is ever liberal in its views and in its search for knowledge, therefore

Resolved, That this convention extends to its allopathic friends a cordial invitation to attend its sessions.

This preamble and resolution were then discussed at considerable length. The introduction of the term "allopathic" was strongly objected to by some members, while others thought the Institute would be guilty of bad taste in vaunting its liberality; whereupon the whole matter was, on motion, referred to a committee, to report thereon during the session.

It was moved and carried that the Chair appoint a committee of three to consider the subject.

THE VICE-PRESIDENT then appointed William H. Watson, M.D., of Utica, N. Y., J. R. Flowers, M.D., of Columbus, O., and Charles A. Bacon, M.D., of New York, said committee.

THE VICE-PRESIDENT: The Chairman of the Board of Censors reequests that applications for membership be handed to him as promptly as possible, so that there may be ample time afforded for a proper examination of the applications. I would request those who have papers belonging to the several bureaus to place them in the hands of the appropriate chairman, that there may be no delay in rendering the reports. The next business in order will be the presentation of the report and papers of the

BUREAU OF MATERIA MEDICA, PHARMACY, AND PROVINGS.

CARROLL DUNHAM, M.D., of Irvington-on-Hudson, N. Y., presented the papers of the bureau, as follows:

General Report of the Bureau; by CARROLL DUNHAM, M.D., of Irvington-on-Hudson, N. Y.

Provings of Sepia; arranged by CARROLL DUNHAM, M.D.

Observations on Sepia; by MERCY B. JACKSON, M.D., of Boston, Mass.

Primary and Secondary Symptoms of Drugs:

(*a.*) Primary and Secondary Symptoms of Drugs defined and distinguished; by J. P. DAKE, M.D., of Nashville, Tenn., and TIMOTHY F. ALLEN, M.D., of New York.

(*b.*) Primary and Secondary Symptoms of Drugs as Guides in the Selection of Remedies in Practice; by CONRAD WESSELHŒFT, M.D., of Boston, Mass., and WALLACE MCGEORGE, M.D., of Woodbury, N. J.

(*c.*) Primary and Secondary Symptoms of Drugs as Guides in Determining the Dose; by E. M. HALE, M.D., of Chicago, and CARROLL DUNHAM, M.D.

DR. DUNHAM: I hold in my hand the provings of Sepia, consisting of the day-books of the provers and record of symptoms. I do not propose to read it to you, but I can certainly, and with a good deal of conscientiousness, commend it to your most careful consideration and scrutiny. The second subject selected by the bureau was the consideration of Primary and Secondary Symptoms of Drugs. I would call upon Dr. Dake to read his paper.

J. P. DAKE, M.D., of Nashville, Tenn., then read his paper entitled *Primary and Secondary Symptoms of Drugs defined and distinguished.*

T. F. ALLEN, M.D., of New York, then read his paper on the same subject.

DR. DUNHAM then read a synopsis of the paper by Conrad Wesselhœft, of Boston, entitled *Primary and Secondary Symptoms of Drugs as Guides in the Selection of Remedies in Practice.*

DR. DUNHAM also presented an outline of the paper by Wallace McGeorge, M.D., of Woodbury, N. J., on the same subject.

DR. DUNHAM then read his paper entitled *Primary and Secondary Symptoms of Drugs as Guides in Determining the Dose.*

The papers of the bureau were on motion accepted, and referred to the Committee of Publication.

A brief discussion then ensued, whereupon the bureau was declared closed.

WILLIAM H. WATSON, M.D., Chairman of the Committee on Invitation to the Medical Society of the State of Ohio, then made the following report on behalf of that committee:

1st. The committee recommend that the preamble and resolution offered by Dr. J. R. Flowers be laid on the table.

2d. That the following resolution be adopted in its stead:

Resolved, That the presiding officer of the American Institute of Homœopathy be and he is hereby requested to extend an invitation to the Medical Society of the State of Ohio, now in session at Put-in-Bay, to attend the deliberations of this convention.

After some appropriate remarks by Dr. Watson, the report of the committee was unanimously received and adopted.

THE VICE-PRESIDENT then announced that the following would constitute the

Bureau of Materia Medica, Pharmacy, and Provings for 1877.

T. F. ALLEN, M.D., *Chairman*,	New York.
CONRAD WESSELHŒFT, M.D.,	Boston.
J. P. DAKE, M.D.,	Nashville, Tenn.
T. S. HOYNE, M.D.,	Chicago.
WALLACE MCGEORGE, M.D.,	Woodbury, N. J.
E. A. FARRINGTON, M.D.,	Philadelphia.
EDWIN M. HALE, M.D.,	Chicago.
WILLIAM OWENS, M.D.,	Cincinnati.
EMMA SCOTT, M.D.,	New York.

THE VICE-PRESIDENT: The next business in order will be the presentation of the report and papers of the

BUREAU OF GENERAL SANITARY SCIENCE AND CLIMATOLOGY.

BUSHROD W. JAMES, M.D., of Philadelphia, Chairman of the bureau, presented the following papers:

On the Construction of Hospitals; by D. H. BECKWITH, M.D., of Cleveland, O.

The Hot Springs of Arkansas; by LUCIUS D. MORSE, M.D., of Memphis, Tenn.

Notes on the Climatology of Consumption and some Malarial Diseases; by A. R. WRIGHT, M.D., of Buffalo, N. Y.

Climatology of the South Atlantic States, especially with reference to Life Insurance; by F. H. ORME, M.D., of Atlanta, Ga.

Climatology of Alabama and the Gulf Coast; by WILLIAM J. MURRELL, M.D., of Mobile, Ala.

Bearings of Climate on the Choice of the Remedy; by LUCIUS D. MORSE, M.D., of Memphis, Tenn.

Epidemics of New York State; by A. R. WRIGHT, M.D., of Buffalo, N. Y.

On Ventilation; by H. B. VAN NORMAN, M.D., of Cleveland, O.

General Report on Sanitary Science and Climatology; by BUSHROD W. JAMES, M.D., of Philadelphia.

DR. JAMES: Some of these papers are quite lengthy, and we do not propose to have them all read.

S. LILIENTHAL, M.D., of New York: I move that the papers of those who are present be read, and that the others be read by title and referred. The motion was seconded.

T. F. ALLEN, M.D., of New York: Chairmen have the right to make a synopsis of a lengthy paper and read that.

HENRY M. SMITH, M.D., of New York: I hope the motion of Dr. Lilienthal will not prevail. There are often very interesting and instructive papers sent here, which we would like to hear read, the authors of which are perhaps utterly unable to attend the meeting. Under the workings of this resolution such papers would be simply referred without reading, while we might be compelled to listen to others greatly their inferior.

HENRY C. HOUGHTON, M.D., of New York: I wish simply to remark that should this motion prevail, it will cut off some of the best material furnished by the bureau of which I am a member, and we may be obliged to listen to some matter not quite so good.

N. R. MORSE, M.D., of Salem, Mass.: This resolution will cut off the best papers that will be presented by the Bureau of Clinical Medicine. I think the chairman of a bureau should have discretionary power to say which papers shall or shall not be read.

D. H. BECKWITH, M.D., of Cleveland, O.: I am of the opinion that members of bureaus who have prepared papers and are present to read them, should be heard, and not be excluded or their time infringed by the papers of those who are absent.

The motion was not agreed to.

DR. B. W. JAMES read a brief paper by Dr. A. R. Wright, of Buffalo, N. Y., entitled *Epidemics of New York State.*

DR. D. H. BECKWITH, of Cleveland, O., then read his paper *On the Construction of Hospitals.*

A. R. WRIGHT, M.D., of Buffalo, N. Y., read his paper entitled *Notes on the Climatology of Consumption and some Malarial Diseases.*

B. W. JAMES, M.D., of Philadelphia, read a portion of his paper entitled the *General Report on Sanitary Science and Climatology.*

DR. JAMES then submitted the following preamble and resolutions:

WHEREAS, It is now a difficult matter to obtain mortuary reports from many of our cities and towns, therefore

Resolved, That this body would recommend to the members of the Institute that they in their respective cities and towns, where published reports are to be had, obtain and furnish annually to this bureau a copy of such published reports; and further, that when such reports are made up, State statistical mortuary reports be likewise sent to this bureau.

Resolved, That in States, cities, and towns where these reports are not made and published, they be urged to publish them for the general good of the country, as well as for local advantages.

The papers read were accepted, and referred to the Committee of Publication; and the remaining papers of the bureau were read by title and similarly referred.

THE VICE-PRESIDENT: The subjects presented by this bureau are now open for discussion, and the preamble and resolutions are before you. I would remark, however, that the time allotted to this morning session has nearly expired.

T. S. VERDI, M.D., of Washington, D. C.: This is probably one of the most important bureaus that will report to this Institute, and I hope it will not be passed over without a full and free discussion. I should like to make a few remarks on some of the subjects presented. According to the programme adopted, we will open the evening session with the reports from another bureau, and it looks as though there would be no opportunity for a discussion on *Sanitary Science.*

D. H. BECKWITH, M.D.: I move that the time of the evening session be a half hour earlier than that stated in the programme, in order to give a chance for the discussion of this subject.

The motion was agreed to.

The Institute then adjourned, to meet at 7.30 o'clock in the evening.

EVENING SESSION.

The Institute was called to order at 7.30 P.M., the Vice-President in the chair.

THE VICE-PRESIDENT: The first business in order will be the consideration of the papers and resolutions of the Bureau of Sanitary Science and Climatology.

DR. B. W. JAMES: The Institute will remember that the bureau, at the close of the morning session, had presented its papers, and had offered a preamble and resolutions for your consideration, which I will again read.

DR. JAMES then read the preamble and resolutions as above, and they were, on motion, unanimously adopted.

The subject of *Sanitary Science* was then briefly discussed, whereupon the bureau was declared closed.

THE VICE-PRESIDENT then announced that the following persons would constitute the

Bureau of Sanitary Science and Climatology for 1877.

T. S. VERDI, M.D., *Chairman*,	Washington, D. C.
B. W. JAMES, M.D.,	Philadelphia.
D. H. BECKWITH, M.D.,	Cleveland, O.
F. H. ORME, M.D.,	Atlanta, Ga.
A. R. WRIGHT, M.D.,	Buffalo, N. Y.
L. D. MORSE, M.D.,	Memphis, Tenn.
W. H. LEONARD, M.D.,	Minneapolis, Minn.
GEORGE W. BARNES, M.D.,	San Diego, Cal.
O. S. WOOD, M.D.,	Omaha, Neb.

THE SECRETARY stated that he had been requested by a Committee from the State Board of Underwriters, of Ohio, in session at the Put-in-Bay House, to invite the Institute to attend a lecture to be delivered that evening by the Hon. Elizur Wright, on the subject of Life Insurance.

On motion of Dr. J. P. Dake, the Secretary was instructed to notify the Board of Underwriters of the acceptance of their polite invitation, and to convey the thanks of the Institute for the same.

THE VICE-PRESIDENT: The next business in order will be the presentation of the report and papers of the

BUREAU OF CLINICAL MEDICINE.

SAMUEL LILIENTHAL, M.D., of New York, presented the report and papers of the bureau, in the absence of the Chairman, H. N. Martin, M.D., of Philadelphia. Dr. Lilienthal stated that the bureau had selected *Diabetes and Bright's Disease of the Kidneys* for presentation and discussion. The following papers were announced:

Pathology and Diagnosis of Diabetes; by JONATHAN PETTET, M.D., of Cleveland, O.

The Therapeutics of Diabetes; by SAMUEL LILIENTHAL, M.D., of New York.

Pathology and Diagnosis of Morbus Brightii; by HENRY NOAH MARTIN, M.D., of Philadelphia.

The Treatment of Bright's Disease; by WILLIAM H. HOLCOMBE, M.D., of New Orleans, La.

A Case of Chronic Bright's Disease; by A. LE ROY FISHER, M.D., of Elkhart, Ind.

Cases of Bright's Disease treated homœopathically, compiled from the *British Journal of Homœopathy, North American Journal of Homœopathy, Philadelphia Journal of Homœopathy, United States Medical and Surgical Journal,* and the *Hahnemannian Monthly;* by GILBERT SHEPARD, M.D., of La Crosse, Wis.

The Cause of Hydrophobia; by GEORGE W. BOWEN, M.D., of Fort Wayne, Ind.

A Patient alternately Blind, and Deaf, and Dumb; by E. C. BECKWITH, M.D., of Columbus, O.

Clinical Cases; by C. D. FAIRBANKS, M.D., of Englewood, Ill.

DR. LILIENTHAL read a portion of his paper entitled *The Therapeutics of Diabetes.*

DR. A. LE ROY FISHER read his paper entitled *A Case of Chronic Bright's Disease.*

DR. E. C. BECKWITH read his paper on the case of *A Patient alternately Blind, and Deaf, and Dumb.*

These papers were accepted and referred to the Committee of

Publication; and the remaining papers of the bureau were read by title and appropriately referred.

It was announced that a sectional meeting of the bureau would be held, whereupon the bureau was declared closed.

THE VICE-PRESIDENT then read the following names of members composing the

Bureau of Clinical Medicine for 1877.

S. LILIENTHAL, M.D., *Chairman*,	New York.
J. C. BURGHER, M.D.,	Pittsburg, Pa.
HENRY B. CLARKE, M.D.,	New Bedford, Mass.
E. J. FRASER, M.D.,	San Francisco.
WILLIAM EGGERT, M.D.,	Indianapolis, Ind.
HENRY NOAH MARTIN, M.D.,	Philadelphia.
JONATHAN PETTET, M.D.,	Cleveland, O.
E. C. BECKWITH, M.D.,	Columbus, O.
F. F. DE DERKEY, M.D.,	Indianapolis, Ind.
J. A. CARMICHAEL, M.D.,	New York.

F. R. MCMANUS, M.D., Chairman of the Board of Censors, then presented a partial report from the board, recommending the election to membership of a number of applicants whose eligibility had been carefully inquired into. On motion, the physicians recommended were elected to membership. (See *Complete Report of the Board of Censors.*)

THE VICE-PRESIDENT: The next business in order will be the report of the

COMMITTEE ON MEDICAL LITERATURE.

S. LILIENTHAL, M.D., of New York, read the report, in the absence in Europe of the Chairman, Dr. I. T. Talbot, of Boston.

On motion, the report was accepted and referred to the Committee of Publication.

THE VICE-PRESIDENT: The committee for 1877 will be constituted as follows:

Committee on Medical Literature for 1877.

A. E. SMALL, M.D., *Chairman*,	Chicago.
I. T. TALBOT, M.D.,	Boston.
T. F. POMEROY, M.D.,	Detroit.
E. U. JONES, M.D.,	Taunton, Mass.
J. D. BUCK, M.D.,	Cincinnati.

THE VICE-PRESIDENT: The report of the

COMMITTEE ON A HOMŒOPATHIC DISPENSATORY

will now be received, being the next business in order.

CARROLL DUNHAM, M.D., Irvington-on-Hudson, N. Y., Chairman of the Committee, presented the report, which was to the effect that the work was substantially completed in manuscript, and the final transcription for the printer was now in progress. The report was accepted, and referred to the Committee of Publication. (Section I, Art. XLV.)

THE VICE-PRESIDENT: The committee as at present constituted will be continued. The next business in order will be the presentation of the report of the

COMMITTEE ON FOREIGN CORRESPONDENCE.

CARROLL DUNHAM, M.D., presented the report, which comprised a letter from a corresponding member, Dr. Tomaso Cigliano, of Naples, Italy; and an account of the Mexican Homœopathic Society and its organ, *El Faro Homeopatico*. The report was accepted, and referred to the Committee of Publication. (Section I, Art. XLIX.)

CHARLES A. BACON, M.D., of New York, moved that the General Secretary be instructed to notify Dr. Cigliano and the Mexican Homœopathic Society of the report of the committee, which motion was agreed to.

THE VICE-PRESIDENT then announced that the following physicians would constitute

The Committee on Foreign Correspondence for 1877.

CHARLES A. BACON, M.D., *Chairman*,	New York.
CARROLL DUNHAM, M.D., . . .	Irvington-on-Hudson, N. Y.
E. B. DE GERSDORFF, M.D., . .	Boston.
T. S. VERDI, M.D., ...	Washington, D. C.
CONRAD WESSELHŒFT, M.D., . .	Boston.

The Institute then adjourned, to meet on Wednesday morning at 9.30 o'clock.

SECOND DAY.

MORNING SESSION.

The Institute was called to order pursuant to adjournment, Orren S. Sanders, M.D., of Boston, having been called to the chair.

T. F. ALLEN, M.D., Chairman of the *Botanical Committee*, presented a number of plants gathered by the committee, and by Dr. J. R. Haynes, of Indianapolis, Ind., whom the committee wished to have added to their number. The wish of the committee was complied with.

THE VICE-PRESIDENT having taken the chair during the rendering of the above report, announced that the next business in order would be the presentation of the report and papers of the

BUREAU OF SURGERY.

LEWIS H. WILLARD, M.D., of Alleghany, Pa., Chairman of the Bureau, presented the report, and announced the following papers:

Concussion and Compression; by E. C. FRANKLIN, M.D., of St. Louis, Mo.

Dislocations of the Hip; by LEWIS H. WILLARD, M.D., of Alleghany, Pa.

Dislocations of the Knee; by J. H. BUFFUM, M.D., of Pittsburg, Pa.

Compound Dislocations; by J. GRANT GILCHRIST, M.D., of Detroit, Mich.

Fractures of the Humerus; by MALCOLM MACFARLAN, M.D., of Philadelphia.

Fractures of the Femur; by J. H. MCCLELLAND, M.D., of Pittsburg, Pa.

Fractures of the Foot; by J. H. MCCLELLAND, M.D., of Pittsburg, Pa.

A Famous Case of Gunshot Wound; by JOHN C. MORGAN, M.D., of Philadelphia.

Surgical Diseases of the Prostate; by H. F. BIGGAR, M.D., of Cleveland, O.

DR. E. C. FRANKLIN, of St. Louis, gave a brief synopsis of his paper on *Concussion and Compression.*

DR. J. H. MCCLELLAND, of Pittsburg, Pa., then read his paper on *Fractures of the Femur.*

The above papers were all accepted, and referred to the Committee of Publication.

T. P. WILSON, M.D., of Cincinnati, O., at the request of Dr. Willard, made a verbal statement regarding a tumor of the scalp he had removed.

The papers of the bureau were discussed at some length.

THE VICE-PRESIDENT then declared the bureau closed, and announced the appointments for 1877. The bureau as announced not being satisfactory, was subsequently, on motion of Dr. J. P. Dake, referred back to the Executive Committee, with the request that the appointments be revised. This was done by the committee, and the following appointments were announced as constituting the

Bureau of Surgery for 1877.

E. C. FRANKLIN, M.D., *Chairman*,	St. Louis, Mo.
L. H. WILLARD, M.D.,	Alleghany, Pa.
J. H. MCCLELLAND, M.D.,	Pittsburg, Pa.
J. R. FLOWERS, M.D.,	Columbus, O.
WILLIAM TOD HELMUTH, M.D.,	New York.
H. M. JERNEGAN, M.D.,	Boston.
H. F. BIGGAR, M.D.,	Cleveland, O.
A. G. BEEBE, M.D.,	Chicago.
J. G. GILCHRIST, M.D.,	Detroit, Mich.
N. SCHNEIDER, M.D.,	Cleveland, O.

THE VICE-PRESIDENT: The next business in order will be the presentation of the report and papers of the

BUREAU OF OBSTETRICS.

O. B. GAUSE, M.D., of Philadelphia, presented the report and papers, in the absence of the chairman, J. H. Woodbury, M.D., of Boston, Mass. Dr. Gause said the subject selected by the bureau for presentation and discussion was *The Disorders Incident to Pregnancy and Parturition*, and the following papers had been prepared:

The Third Stage of Labor, its Duties and Management; by J. C. SANDERS, M.D., of Cleveland, O.

Reflex Gastric Derangements during Pregnancy; by J. H. WOODBURY, M.D., of Boston, Mass.

Mental Influences on Maternity; by O. B. GAUSE, M.D., of Philadelphia.

On Malpresentations of the Fœtus in Utero; by MERCY B. JACKSON, M.D., of Boston, Mass.

Childbearing, or Remarks on some of the Influences which Promote and Help to Determine Healthy Procreation; by JAMES T. ALLEY, M.D., of St. Paul, Minn.

DR. GAUSE read the paper of Dr. J. H. Woodbury, of Boston, entitled *Reflex Gastric Derangements during Pregnancy.*

He also read the paper of Dr. Mercy B. Jackson, *On Malpresentations of the Fœtus in Utero.*

The papers of the bureau were then, on motion, accepted, and referred to the Committee of Publication.

The papers of this bureau were very briefly discussed, whereupon the bureau was declared closed.

THE VICE-PRESIDENT then announced that the following members would constitute the

Bureau of Obstetrics for 1877.

O. B. GAUSE, M.D., *Chairman*,	Philadelphia.
J. C. SANDERS, M.D.,	Cleveland, O.
MERCY B. JACKSON, M.D.,	Boston.
J. T. ALLEY, M.D.,	St. Paul, Minn.
S. P. BURDICK, M.D.,	New York.
T. C. BRADFORD, M.D.,	Cincinnati, O.
J. F. COOPER, M.D.,	Alleghany, Pa.
W. L. CLEVELAND, M.D.,	Atlanta, Ga.
CHARLES W. BREYFOGLE, M.D.,	San Jose, Cal.

THE VICE-PRESIDENT: I take this opportunity to announce to the Institute that I have received a communication from Dr. J. J. Youlin, of Jersey City, N. J., late President of the Institute, who sends greeting to the members, and expresses great regret that he is unable to attend the meeting, an accident of a serious nature having befallen his daughter.

The next business in order will be the presentation of the report and papers in charge of the

BUREAU OF PÆDOLOGY.

N. R. MORSE, M.D., of Salem, Mass.: At the request of Dr. D. S. Smith, of Chicago, Chairman of the Bureau, I was appointed Chairman of the Bureau, at Niagara Falls, in June last. The subject selected by the bureau for presentation and discussion at this meeting was *Scarlet Fever*. The following papers are in possession of the bureau:

History and Statistics of Scarlet Fever; by C. W. SONNENSCHMIDT, M.D., of Washington, D. C.

Nature and Diagnosis of Scarlet Fever; by L. M. KENYON, M.D., of Buffalo, N. Y.

Etiology and Prophylaxis of Scarlet Fever; by NATHAN R. MORSE, M.D., of Salem, Mass.

Clinical Successes in and Peculiarities of Scarlet Fever; by T. C. DUNCAN, M.D., of Chicago.

Complications and Sequelæ of Scarlet Fever; by E. P. CUMMINGS, M.D., Newburyport, Mass.

The Therapeutics of Cholera Infantum; by ADOLPH LIPPE, M.D., of Philadelphia.

DR. N. R. MORSE then read his paper on the *Etiology and Prophylaxis of Scarlet Fever*, which was accepted, and referred to the Committee of Publication.

DR. T. C. DUNCAN read his paper entitled *Clinical Successes in and Peculiarities of Scarlet Fever*, which was likewise accepted, and appropriately referred.

DR. MORSE: These are all the papers on Scarlet Fever we propose to read. I have here a paper ostensibly on the *Therapeutics of Cholera Infantum*, by Dr. Adolph Lippe, of Philadelphia, but which is in reality a sharp reply to a paper with a similar title read before the Institute at the meeting in June last, at Niagara Falls, by Dr. Henry Noah Martin, of Philadelphia, and which contained a very severe attack on Dr. Guernsey's treatment of Cholera Infantum, in his work on Obstetrics, etc. I told Dr. Martin last year that I thought his paper was unjust and ungenerous, and I questioned whether he should present it; but as he was Chairman of the Bureau, he had a right to present it, of course, if he thought proper to do so. Dr. Lippe's paper

was handed me by the General Secretary, with the request that I should read it. What shall I do with the paper?

MEMBERS: Read it.

E. C. BECKWITH, M.D.: I object to its being read on the ground that Dr. Martin is not present.

DR. MORSE: Dr. Guernsey was not present last year.

T. F. ALLEN, M.D., of New York: I move it be accepted and referred.

THE SECRETARY: I wish to state, Mr. President, my connection with this paper. I was asked in Philadelphia whether I would take this paper to the Institute and present it to the Chairman of the Bureau, and whether I thought it would be read. I agreed to take charge of the paper as a matter of course, and replied to the latter query to the effect that I never knew the Institute fail to deal justly by its members. A number of the friends of Dr. Guernsey feel that he has been unjustly and unwarrantably attacked and criticized by Dr. Martin, under cover of a paper on Cholera Infantum. This paper was regularly presented and read to the Institute at its last session, accepted and referred, and published in the last volume of *Transactions* as part of the report of the Bureau of Pædology on the subject of Cholera Infantum. In the paper in the hands of Dr. Morse, Dr. Lippe has taken up the cudgel for his friend Dr. Guernsey, who declined to reply to Dr. Martin himself, and under the title of Therapeutics of Cholera Infantum, reviews Dr. Martin's criticism of Guernsey's therapeutics. Now, the friends of Dr. Guernsey think that Dr. Lippe's paper should be read in open meeting as Dr. Martin's paper was, and that it should be published in the annual volume. Under the rule of the Institute, no paper of a bureau can be published with the *Transactions* unless it be on the subject selected by that bureau for presentation and discussion, except by special vote. If no action whatever is taken on Dr. Lippe's paper, beyond its acceptance and reference to the Committee of Publication, Dr. Guernsey's friends will doubtless feel that they have been unfairly dealt with.

S. LILIENTHAL, M.D.: I move the paper be read.

Agreed to.

DR. N. R. MORSE then read Dr. Lippe's paper.

DR. E. C. BECKWITH: As Dr. Martin and Dr. Lippe have now had each his say, I hope this matter will go no farther. Such papers do us no good, we learn nothing from them, and they simply serve to keep up a bad feeling, to the detriment of the Institute.

DR. LILIENTHAL: I move the paper be accepted and referred to the Committee of Publication, and that the committee have authority to do with it what they may deem proper.

Agreed to.

The remaining papers of the bureau were accepted, and referred to the Committee of Publication.

The Institute then adjourned, to meet in the evening.

EVENING SESSION.

The Institute reassembled pursuant to adjournment, N. R. Morse, M.D., being called to the chair.

F. R. MCMANUS, M.D., Chairman of the Board of Censors, made an additional report on behalf of the board, recommending the election to membership of a number of applicants.

DR. J. P. DAKE, of Nashville, Tenn., moved, and it was agreed to, that the report be accepted, and the physicians recommended by the board be elected to membership. (See *Complete Report of the Board of Censors.*)

During the reading of the above report the Vice-President took the chair.

THE VICE-PRESIDENT stated that the papers of the Bureau of Pædology were before the Institute for discussion, whereupon a brief discussion ensued.

THE VICE-PRESIDENT: The Bureau of Pædology is now declared closed. The following members will constitute the

Bureau of Pœdology for 1877.

T. C. DUNCAN, M.D., *Chairman*,	Chicago.
N. R. MORSE, M.D.,	Salem, Mass.
L. M. KENYON, M.D.,	Buffalo, N. Y.
C. W. SONNENSCHMIDT, M.D.,	Washington, D. C.
G. H. WILSON, M.D.,	West Meriden, Conn.

W. H. JENNY, M.D.,	Kansas City, Mo.
H. V. MILLER, M.D.,	Syracuse, N. Y.
W. N. GRISWOLD, M.D.,	San Francisco, Cal.
MARO M. L. REED, M.D.,	Jacksonville, Ill.
C. D. CRANK, M.D.,	Cincinnati, O.

THE VICE-PRESIDENT: The next business in order will be the presentation of the report and papers of the

BUREAU OF MICROSCOPY.

T. F. ALLEN, M.D., of New York, presented the report. Dr. Allen said he regretted that it had fallen to him to present this report, as he did not claim to be a microscopist, although he had done considerable work with the microscope. The papers of the bureau are the following:

The Relation of the Microscope to Therapeutics; by J. D. BUCK, M.D., Cincinnati, O.

On the Structure of the Synovial Membranes; by TIMOTHY F. ALLEN, M.D., of New York.

DR. T. F. ALLEN then read his paper *On the Structure of the Synovial Membranes*, stating that he had prepared specimens of synovial membrane for exhibition on a screen by means of the oxyhydrogen light, but that he had found it would be difficult to transport his apparatus so far, and thought that the exhibition would have taken up more time than the Institute would care to devote to the subject.

J. D. BUCK, M.D., of Cincinnati, then read his paper entitled *The Relation of the Microscope to Therapeutics.*

These papers were accepted and referred to the Committee of Publication, and there being no discussion the bureau was declared closed.

THE VICE-PRESIDENT: The following gentlemen will constitute the

Bureau of Microscopy for 1877.

J. D. BUCK, M.D., *Chairman*,	Cincinnati, O.
SAMUEL A. JONES, M.D.,	Englewood, N. J.
C. P. ALLING, M.D.,	Dunkirk, N. Y.
O. P. BAER, M.D.,	Richmond, Ind.
J. H. BUFFUM, M.D.,	Pittsburg, Pa.
J. M. SCHLEY, M.D.,	New York.

THE VICE-PRESIDENT: The next business in order is the presentation of the report and papers of the

BUREAU OF ORGANIZATION, REGISTRATION, AND STATISTICS.

HENRY M. SMITH, M.D., of New York: I am not authorized, Mr. Chairman, to speak for the Chairman of this Bureau, Dr. E. U. Jones, of Taunton, Mass., but simply to present the papers he has confided to my care as a member of the bureau. The chairman laid out as the work of the bureau for the year, the statistics of homœopathy in the United States, including the number of physicians in each State, hospitals, colleges, dispensaries, journals, institutions under homœopathic control, etc., and the ratio of homœopathic to allopathic physicians; but he writes that he has received a very weak support from most of his fellow-members of the bureau. Dr. Jones has himself furnished such statistics of the New England States. Dr. Jonathan Pettet, of Cleveland, has furnished similar statistics of a number of the Southern States; and Dr. M. F. Page, of Appleton, Wis., has furnished a partial report regarding the State of Wisconsin. These, together with a notification to the General Secretary of the organization of the *Western Academy of Homœopathy*, and of the *Homœopathic Medical Society of Middle Tennessee*, and a circular letter from Canadian homœopathic physicians, being a *Declaration of Principles*, constitute the papers of the bureau.

On motion the papers of the bureau were accepted and referred to the Committee of Publication, and the bureau was declared closed.

DR. SMITH: I would call the attention of the Institute to the fact that in this year will be celebrated the fiftieth anniversary of the introduction of homœopathy into this country. In 1825, Dr. Hans B. Gram returned from Europe to his native land, and published the first homœopathic work published outside of Germany. The New York County Medical Society intend celebrating this event in September next.

THE VICE-PRESIDENT: The next business in order will be the presentation of the report of the

COMMITTEE ON LEGISLATION.

R. J. McCLATCHEY, M.D., Chairman of the Committee: The report of the committee will be read by Dr. J. P. Dake, a member of the committee; after which the chairman will present the preamble and resolutions that have been prepared for the action of the Institute.

J. P. DAKE, M.D., of Nashville, Tenn., then read the report of the committee.

THE SECRETARY then read the following preamble and resolutions:

Whereas, A vigorous effort is being made for the erection of a standard of medical orthodoxy, that shall be authoritative in the General Government and in the several State governments, and for the enforcement of which medical examining boards of a sectarian character are proposed, with power to license or prohibit practitioners of the healing art, at pleasure, or upon conditions inconsistent with the freedom guaranteed by our form of government; and whereas each effort at the establishment of authoritative or State medicine has appeared under the guise of sanitary science and as if designed for the promotion of the public health; and whereas in States whose legislatures have already been induced by such effort to appoint Boards of Medical Examiners and Boards of Health, it is apparent that not the advancement of medical learning, nor increase of medical skill, nor yet the protection of the public health, are paramount objects, but rather that these are secondary to the promotion of sectarian purposes and the aggrandizement of certain medical associations, to the disparagement of others; and whereas all such efforts are subversive of proper individual freedom, and of the true interests of science and of the people, deserving the earnest condemnation of this body, which owes its existence and widespread influence to the entire absence of a governmental medical censorship;

Resolved, 1st. That we regard it as a fundamental principle, that the State has no right to erect a standard of medical orthodoxy;

2d. That the appointment of State Boards of Medical Examiners, with power to discriminate among medical practitioners, on account of medical opinions, or credentials of scholastic attainments in student life, or answers to such questions as they may choose to propound during an examination, conducted to suit their own preferences, is wrong and should receive our earnest and unceasing opposition;

3d. That in States where such boards already exist a fair representation should be demanded by each medical sect, till the whole scheme is abolished;

4th. That while now, as in the past, we are decidedly favorable to an enlightened hygiene for individuals and for the public, we are earnestly opposed to all Boards of Health and all sanitary laws created under the auspices and for the benefit of certain medical associations and certain individuals, to the exclusion and detriment of all others;

5th. That, the better to carry out the views and wishes of this body, its Committee on Legislation be instructed to appoint a sub-committee of three physicians in each State, who shall act in conjunction with them in their respective legislatures, and also to issue a circular of instructions to the State committees, and such other circulars as may be deemed best, to enlighten the profession and the public and to influence legislation in the directions indicated by these resolutions.

On motion the report of the committee was accepted, and referred to the Committee of Publication. (Section I, Art. L.)

T. C. DUNCAN, M.D., of Chicago, moved that the preamble and resolutions submitted by the Committee on Legislation be adopted.

Agreed to.

J. D. BUCK, M.D., of Cincinnati, O., moved that the report of the committee, and the preamble and resolutions just adopted, be published in pamphlet form, and distributed by the Committee of Publication, at as early a date as possible.

Agreed to.

AMENDMENT TO THE BY-LAWS TOUCHING BUREAU APPOINTMENTS.

CARROLL DUNHAM, M.D., of Irvington-on-Hudson, N. Y.: I move that the first paragraph of Section 16 of Article VII, of the By-Laws, be altered and amended so as to read as follows:

Immediately after the reception of the reports of the respective bureaus and committees, the Institute shall proceed to the election of a *Chairman* for the bureau or committee for the ensuing year; and the Chairman thus elected by the Institute shall appoint the other members of his bureau or committee, and announce the appointments through the President before the close of the session.

The motion having been seconded, Dr. Dunham said: By the adoption of this rule, we throw the responsibility of appointing chairmen of bureaus upon the Institute, and if a bad selection is made, the Institute will have to bear the blame. Then the Institute having selected the head of the bureau, that head selects his associates. He is more likely to know who will work well and harmoniously with him than are the officers of the Institute. And if the bureau should fail to present a proper report, the chairman will have to bear the responsibility, and

cannot excuse himself upon the ground that he had unharmonious yoke-fellows thrust upon him. Then again, it will be a great relief to the officers of the Institute from a duty always difficult, always thankless, and a constant source of grievance to the members of the Institute, and unavoidably so.

The amendment was adopted.

THE VICE-PRESIDENT: This by-law goes into effect at once. The Institute can, if it pleases, go still farther and rescind the appointments thus far made, and have the bureaus all organized under the new rule.

D. H. BECKWITH, M.D.: I do not think that would be proper, and hope the appointments made will stand.

T. F. ALLEN, M.D.: The by-law cannot be made retroactive. Legislation can only be prospective.

THE SECRETARY: It will now be the duty of the Institute to elect a Chairman of the Bureau of Organization, Registration, and Statistics, and a Chairman of the Committee on Legislation. The present chairman of the bureau mentioned has positively declined to serve again, and I may say the same of the present chairman of the Committee on Legislation.

HENRY M. SMITH, M.D., of New York, was elected Chairman of the Bureau of Organization, Registration, and Statistics for 1877.

TULLIO S. VERDI, of Washington, D. C., was elected Chairman of the Committee on Legislation.

Subsequently the Vice-President announced that these gentlemen had made the following appointments:

Bureau of Organization, Registration, and Statistics for 1877.

HENRY M. SMITH, M.D., *Chairman*,	New York.
JONATHAN PETTET, M.D.,	Cleveland, O.
PEMBERTON DUDLEY, M.D.,	Philadelphia.
TEMPLE S. HOYNE, M.D.,	Chicago.
EDWIN M. KELLOGG, M.D.,	New York.
T. DWIGHT STOW, M.D.,	Fall River, Mass.
T. FRANKLIN SMITH, M.D.,	New York.

Committee on Legislation.

T. S. VERDI, M.D., *Chairman*,	Washington, D. C.
J. P. DAKE, M.D.,	Nashville, Tenn.
M. O. TERRY, M.D.,	Utica, N. Y.
DAVID THAYER, M.D.,	Boston.
D S. SMITH, M.D.,	Chicago.
G. N. SEIDLITZ, M.D.,	Keokuk, Iowa.
E. C. BECKWITH, M.D.,	Columbus, O.
C. W. BREYFOGLE, M.D.,	San Jose, Cal.
JAMES B. WOOD, M.D.,	West Chester, Pa.
O. S. RUNNELS, M.D.,	Indianoplis, Ind.
I. N. ELDRIDGE, M.D.,	Flint, Mich.

JAMES B. WOOD, M.D., of West Chester, Pa.: It will, doubtless be remembered, Mr. President, that at the last meeting of the Institute, held at Niagara Falls, I offered a preamble and resolution for the consideration of the Institute, which, owing to the lateness of the hour, were laid on the table, and remained there at the close of the session. According to parliamentary usage, I believe, these should have come before this body as its first business at this session. I move that they be now taken up.

THE VICE-PRESIDENT: The chair decides that the motion is out of order. When the Institute adjourned at Niagara Falls, all business laid on the table fell dead. The gentleman will therefore have to introduce his matter as new business.

DR. WOOD: If I am not allowed to bring the matter up as old business, I shall introduce it as new business. I therefore offer the following preamble and resolution for the consideration of the Institute, which may be found on page 58 of the *Transactions of the Twenty-seventh Session:*

WHEREAS, The American Institute of Homœopathy was founded for the mutual benefit of its members in respect to the science of that school of medicine, and likewise in regard to the proper physical, mental, and moral condition of all who may associate themselves with it in membership; and by its emphatic condemnation, in every stage of its progress, of alcoholic stimulants as a beverage, and likewise by their almost total banishment from the room of the sick, deserves the thanks of every friend of humanity, and should incite to further effort; therefore,

Resolved, That we, as an association, believing as we do in the physical, mental, and moral well-being, not only of our members, but of the community at large, do hereby condemn in unmeasured terms the use of tobacco

in all its forms, except as a medicine in accordance with the homœopathic law of cure, believing it to be a fruiful cause of many diseases which afflict the human family, and that we will in all suitable ways discountenance its use.

D. H. BECKWITH, M.D., of Cleveland, O., moved that the preamble and resolution be laid on the table, which was agreed to.

REPORT OF THE AUDITING COMMITTEE.

JOHN E. JAMES, M.D., of Philadelphia, on behalf of the *Auditing Committee*, reported that the committee had examined the accounts and vouchers of the Treasurer, and had found them correct.

On motion, the report was accepted and the committee discharged.

THE SECRETARY: Many of the members present will doubtless remember that just before the close of the twenty-seventh session of the Institute, Dr. Ezra D. Burr, of Lansing, Michigan, was admitted to membership, after having made a strong appeal to the Institute in his own behalf, and that he was admitted on his "merits as a homœopathic physician of long-standing." Not long after the close of the session, I had a newspaper sent me, called *The Granger Supplement*, which contained what purported to be a report of the proceedings of the twenty-seventh session. On examining this report, I discovered that the report furnished the Buffalo newspapers by the General Secretary had been used as a basis upon which had been constructed a false and lying report, in which this Dr. Burr was made to figure very largely as a speech-maker, a mover of resolutions, a committeeman, and in general as a leading spirit of the convention. Lies were so nicely dovetailed with truths, that it reflected great credit upon the author as an able manufacturer of bogus literature, though not creditable to him in any other way. Suspecting that Dr. Burr might be the author of this false report, I at once took measures to ascertain if this were really the case. In reply to certain communications, I received a letter from a gentleman connected with the *Granger*, in which it was stated that Dr. Burr had brought the report to the newspaper office, and

had paid to have it published in the "Supplement." These are the facts of the case. I have here the documents having reference to the matter, which I now lay before you, that such action may be taken as may be deemed proper under the circumstances.

DR. J. P. DAKE moved that the whole matter be referred to the Board of Censors, with instructions to investigate and report thereon, which motion was adopted.

E. M. KELLOGG, M.D., of New York, moved that the order of business be amended so that the election of officers for the ensuing year shall take place on Thursday, at noon.

Agreed to.

The Institute then adjourned, to meet on Thursday morning, at 9.30 o'clock.

THIRD DAY.

MORNING SESSION.

The Institute reassembled pursuant to adjournment, the Vice-President in the chair.

The *Botanical Committee* presented a brief report, through Dr. J. R. Haynes, of Indianapolis.

THE SECRETARY: Mr. President, two prominent members of this Institute, Dr. I. T. Talbot, of Boston, and Dr. R. Ludlam, of Chicago, are now in Europe, a part of their business there being in behalf of the *Committee on The World's Homœopathic Convention*, as delegates from that committee to present the subject of the Convention and its importance to foreign physicians and foreign societies. It would be policy for this Institute to appoint these gentlemen delegates on behalf of the Institute as well, and so advise them; and I would suggest that a motion to that effect be made.

It was moved and carried that Drs. Talbot and Ludlam be appointed delegates to represent the Institute at the meetings of such foreign homœopathic societies as they may attend.

THE SECRETARY: I have received the resignations of J. Gaul Rosman, M.D., of Brooklyn, N. Y., and N. C. Ricardo, M.D., of Passaic, N. J. Their dues have been paid up in full.

On motion, the resignations of Drs. Rosman and Ricardo were accepted.

THE VICE-PRESIDENT then announced that the next business in order would be the presentation of the report and papers of the

BUREAU OF GYNÆCOLOGY.

S. R. BECKWITH, M.D., of Cincinnati, Chairman of the Bureau, announced that the bureau had selected the subject of *Deviations of the Uterus* for presentation and discussion, and presented the following papers:

The Relative Frequency and Violence of Diseases Peculiar to Women in Northern and Southern Latitudes; by W. H. EDMONDS, M.D., of Memphis, Tenn.

Uterine Tumors; by ISAAC W. SAWIN, M.D., of Providence, R. I.

Uterine Tumor; a Case from Practice, with Illustrations; by T. Y. KINNE, M.D., of Paterson, N. J.

Remote and Reflex Symptoms dependent upon Diseases of the Uterus; by S. R. BECKWITH, M.D., of Cincinnati, O.

Dysmenorrhœa; by the HOMŒOPATHIC MEDICAL SOCIETY OF THE COUNTY OF PHILADELPHIA.

The Formation of Ovarian Cysts; by CORNELIUS ORMES, M.D., of Jamestown, N. Y.*

On Deviations of the Uterus; by J. C. BURGHER, M.D., of Pittsburg, Pa.*

A Case of Successful Cæsarean Section; by S. S. LUNGREN, M.D., of Toledo, O.

The papers of Drs. Edmonds and Kinne were read, accepted, and referred to the Committee of Publication. Dr. J. C. Burgher read a synopsis of his paper, which was also accepted and referred. The remaining papers of the bureau were read by title, accepted, and likewise appropriately referred.

DR. BECKWITH stated that Dr. R. Ludlam, of Chicago, had in course of preparation a paper for this bureau, which he promised to have finished and in the hands of the Secretary in good season. He asked that consent be given that Dr. Ludlam's

* Not received by the General Secretary.

paper be received. It was moved and carried that the Secretary receive Dr. Ludlam's paper.

DR. S. R. BECKWITH then offered the following resolutions, as coming from the bureau:

Resolved, That all papers intended for the Bureau of Gynæcology be presented to the Chairman sixty days prior to the meeting of the Institute, and, from all such papers thus furnished, the Chairman shall select those he considers most useful and valuable, and forward them to the General Secretary at least thirty days prior to the meeting of the Institute.

Resolved, That the General Secretary shall have the papers thus forwarded to him printed for distribution to the members of the Institute at the time of meeting, and that the time allotted to the bureau shall be taken up in discussing such of these papers as the Institute may select.

O. B. GAUSE, M.D., of Philadelphia, moved to amend the resolutions so that these provisions should apply to all bureaus.

THE GENERAL SECRETARY suggested that *ninety days* and *sixty days* should be substituted for "sixty days" and "thirty days" as they occur in the resolutions, which suggestion was accepted by the mover of the resolutions.

DR. J. P. DAKE, after the matter had been discussed, moved that the whole subject be referred to the Bureau of Organization, Registration, and Statistics, which motion was agreed to.

The bureau was then declared closed.

The Institute then elected Dr. J. C. Burgher, of Pittsburg, Chairman of the Bureau of Gynæcology for 1877, and the chairman subsequently announced that the bureau would be constituted as follows:

Bureau of Gynæcology for 1877.

J. C. BURGHER, M.D., *Chairman*, . .	Pittsburg, Pa.
S. R. BECKWITH, M.D., ...	Cincinnati.
R. LUDLAM, M.D., ...	Chicago.
S. S. LUNGREN, M.D., ...	Toledo, O.
O. N. MANN, M.D., ...	Evanston, Ill.
W. A EDMONDS, M.D., ...	Memphis, Tenn.
CORNELIUS ORMES, M.D., . . .	Jamestown, N. Y.
H. F. HUNT, M.D., ...	Camden, N. J.
J. H. WOODBURY, M.D., ...	Boston, Mass.
O. S. RUNNELS, M.D., ...	Indianapolis, Ind.

THE VICE-PRESIDENT: The next business in order will be the presentation of the papers of the

BUREAU OF OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

HENRY C. HOUGHTON, M.D., of New York:

Mr. President and Gentlemen: It gives me great pleasure to report that every member of our bureau, with one exception, has presented a paper on the subject assigned him. It will be impossible for us to read all these papers, and I shall therefore announce them by title, and we will subsequently have read those that are likely to be of greatest interest to the members in general. The papers are as follows:

Retinitis Albuminurica; by GEORGE S. NORTON, M.D., of New York.

Inflammation and Atrophy of the Optic Nerve; by W. H. WOODYATT, M.D., of Chicago.

Acute Suppurative Inflammation of the Middle Ear; by T. P. WILSON, M.D., of Cincinnati.

Chronic Suppuration of the Middle Ear; by W. L. BREYFOGLE, M.D., of Louisville, Ky.

Therapeutics of Suppurative Inflammation of the Middle Ear; by H. C. HOUGHTON, M.D., of New York.

Consequences of Chronic Suppuration of the Middle Ear; by W. H. WOODYATT, M.D., of Chicago.

Alumen Exsiccatum in Ophthalmic Practice; by C. T. LIEBOLD, M.D., of New York.

Subacute Laryngitis, Acute Laryngitis, and Œdema of the Larynx; by E. J. WHITNEY, M.D., of Brooklyn, N. Y.

ELECTION OF OFFICERS.

The hour of noon having arrived, the Institute proceeded to the election of officers for the ensuing year (1876), with the following result:

President.

CARROLL DUNHAM, M.D., . . . Irvington-on-Hudson, N. Y.

Vice-President.

E. C. FRANKLIN, M.D., . . . St. Louis, Mo.

General Secretary.

ROBERT J. MCCLATCHEY, M.D., . . . Philadelphia.

Provisional Secretary.

T. C. DUNCAN, M.D., ... Chicago.

Treasurer.

E. M. KELLOGG, M.D., ... New York.

Censors.

F. R. MCMANUS, M.D., ... Baltimore.
N. R. MORSE, M.D., ... Salem, Mass.
A. E. SMALL, M.D., ... Chicago.
A. R. THOMAS, M.D., ... Philadelphia.
T. F. POMEROY, M.D., ... Baltimore.

HENRY C. HOUGHTON, M.D., of New York, moved that the Bureau of Ophthalmology, Otology, and Laryngology be allowed to go into sectional meeting for the reading and discussion of papers.

Agreed to.

On motion of S. R. Beckwith, M.D., the Institute then took a recess for one hour.

AFTERNOON SESSION.

The Institute reassembled at the termination of the recess, and was called to order by the Vice-President.

THE VICE-PRESIDENT: We will now proceed with the business of the

BUREAU OF OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

(Continued.)

T. P. WILSON, M.D., of Cincinnati, then read his paper entitled *Acute Suppurative Inflammation of the Middle Ear*, accompanying the reading of the paper with illustrative remarks.

H. C. HOUGHTON, M.D., of New York, read his paper entitled *Therapeutics of Suppurative Inflammation of the Middle Ear.*

W. H. WOODYATT, M.D., of Chicago, read his paper on the

Consequences of Chronic Suppurative Inflammation of the Middle Ear.

The paper on *Retinitis Albuminurica*, by George S. Norton, M.D., of New York, was also read.

These papers were accepted and referred to the Committee of Publication, after a brief discussion. The remaining papers of the bureau were read by title, accepted, and likewise referred to that committee.

The bureau was then declared closed, with the privilege of going into sectional meeting.

The Institute elected William H. Woodyatt, M.D., of Chicago, Chairman of the Bureau for 1877, who subsequently announced that the following members would compose the

Bureau of Ophthalmology, Otology, and Laryngology for 1877.

W. H. WOODYATT, M.D., *Chairman*,	Chicago.
C. T. LIEBOLD, M.D.,	New York.
T. P. WILSON, M.D.,	Cincinnati.
H. C. HOUGHTON, M.D.,	New York.
GEORGE S. NORTON, M.D.,	New York.
W. A. PHILLIPS, M.D.,	Cleveland, O.
FREDERICK H. FOSTER, M.D.,	Chicago.
E. J. WHITNEY, M.D.,	Brooklyn, N. Y.

H. F. BIGGAR, M.D., of Cleveland, O., by unanimous consent, exhibited a large tumor, weighing thirteen pounds, which he had removed from the breast of a woman, aged forty-five years. He had previously removed a similar growth weighing eight pounds from the same locality, about a year before. None of the axillary glands seemed to be involved—only the mammary gland. He exhibited the tumor that the surgeons present might inspect it and give him their opinions as to whether it was scirrhus or recurrent fibroid.

F. R. MCMANUS, M.D., then made the final report of the Board of Censors. The physicians recommended by the board were on motion elected members of the Institute. (See *Complete Report of the Board of Censors.*)

DR. MCMANUS, on behalf of the Board of Censors, then reported on the case of Dr. Ezra D. Burr, which had been re-

ferred to the board, recommending his expulsion; whereupon the following resolution was offered and unanimously adopted:

Resolved, That Dr. Ezra D Burr, of Lansing, Mich., who was admitted to membership at the session of 1874, be and he is hereby expelled; and that his name be erased from the list of members.

THE VICE-PRESIDENT: The next business in order will be the presentation of the report and papers of the

BUREAU OF PSYCHOLOGICAL MEDICINE.

T. L. BROWN, M.D., Binghamton, N. Y.: In the absence of the Chairman of this Bureau, it falls to me to present the report and papers. I regret to say that we have but three papers. The Secretary has received a letter from Dr. Stiles, chairman, in which that gentleman expresses great regret at his inability to attend the meeting of the Institute, and states that he has been unable to prepare a paper, on account of the onerous duties connected with his position as superintendent of the Middletown (N. Y.) Asylum for the Insane. The papers we have are as follows:

Where the Many Ways may Meet; by GEORGE W. SWAZEY, M.D., of Springfield, Mass.

The Old and New in Medicine; by JULIA FORD, M.D., of Milwaukee, Wis.

Health in Thought; by T. L. BROWN, M.D., of Binghamton, N. Y.

DR. JULIA FORD read her paper entitled *The Old and New in Medicine*, which was accepted and referred to the Committee of Publication.

The Institute then adjourned, to meet on Friday morning at 8 o'clock.

FOURTH DAY.

The Institute was called to order shortly after 8 o'clock, by the Vice-President.

A final report was made by the *Botanical Committee*, through Dr. J. R. Haynes, who exhibited several specimens of medicinal

plants, including Rhus toxicodendron and Rhus radicans, the botanical and pathogenetic differences of which he pointed out with much elaboration and care, making a very interesting report.

This report gave rise to considerable discussion as to the points of difference, botanically, of these plants.

THE VICE-PRESIDENT: We will now proceed with the business of the session, and first in order comes the

BUREAU OF PSYCHOLOGICAL MEDICINE.

(Continued.)

DR. CARROLL DUNHAM read the paper of Dr. Swazey entitled *Where the Many Ways may Meet.*

DR. T. L. BROWN then read his paper entitled *Health in Thought.*

These papers were accepted and referred to the Committee of Publication, and the bureau was thereupon declared closed.

T. L. BROWN, M.D., was elected Chairman of the Bureau for 1877, and he announced that the following members would compose the

Bureau of Psychological Medicine for 1877.

T. L. BROWN, M.D., *Chairman*,	Binghamton, N. Y.
F. A. ROCKWITH, M.D.,	East Saginaw, Mich.
H. V. MILLER, M.D.,	Syracuse, N. Y.
A. B. SPINNEY, M.D.,	Detroit, Mich.
JULIA FORD, M.D.,	Milwaukee, Wis.
M. O. TERRY, M.D.,	Utica, N. Y.
G. W. SWAZEY, M.D.,	Springfield, Mass.
GEORGE F. FOOTE, M.D.,	Stamford, Conn.
OSCAR N. MANN, M.D.,	Evanston, Ill.

THE VICE-PRESIDENT: We will now hear a report from the Bureau of Organization, Registration, and Statistics, on the subject of

AMENDMENTS TO THE BY-LAWS.

HENRY M. SMITH, M.D., of New York: The bureau which I represent, and to which has been referred certain proposed amendments to the By-laws, would respectfully report that they

recommend the adoption of the following alterations and amendments:

1. Article VII, Section 17. To insert the word *a*, after the word "selected," and to change the word "subjects" into the word *subject*, so that the sentence shall read as follows: "at which time there shall be selected *a* special *subject* to be reported on by them."

2. Article VII, Section 19, to be altered and amended to read as follows:

All papers presented to the Institute must be through an appropriate bureau or committee, and furnished to the chairman thereof at least three months before the meeting of the Institute. The chairman shall forward the papers upon the special subject selected, or a selection therefrom, together with the titles of all, to the General Secretary, at least two months before the meeting of the Institute, to the end that he may have copies printed and furnished to the respective bureaus before the meeting, and to the members present at the meeting; and the time allotted to a bureau shall be occupied in the discussion of such papers upon the special subject as the Institute may select.

On motion of Dr. N. R. Morse, the report presented by the bureau was accepted, and after considerable discussion the amendments suggested were adopted.

N. R. MORSE, M.D., of Salem, Mass., moved that before the words specifying the number of members of which each bureau and standing committee shall consist, the words "*at least*" shall be inserted.

Agreed to.

THE VICE-PRESIDENT: The next business in order will be the presentation of the report and papers of the

BUREAU OF ANATOMY, PHYSIOLOGY, AND HYGIENE.

WILLIAM VON GOTTSCHALK, M.D., of Providence, R. I., Chairman of the Bureau, announced the following papers:

Biology and Definitions of Disease according to Authorities Ancient and Modern; by F. F. DE DERKEY, M.D., of Mobile, Ala.

The Darwinian Theory of the Descent of Man, as explanatory

of the Anomalies of Human Anatomy; by A. R. THOMAS, M.D., of Philadelphia.

On Ventilation; by H. B. VAN NORMAN, M.D., of Cleveland, O.

DR. THOMAS read his paper on *The Darwinian Theory of the Descent of Man, as explanatory of the Anomalies of Human Anatomy*, which was accepted, and referred to the Committee of Publication. The remaining papers of the bureau were accepted and similarly referred, and, there being no discussion, the bureau was declared closed.

A. R. THOMAS, M.D., of Philadelphia, was elected Chairman of the Bureau, who subsequently announced that the bureau would be composed as follows:

Bureau of Anatomy and Physiology for 1877.

A. R. THOMAS, M.D., *Chairman*,	Philadelphia.
WILLIAM VON GOTTSCHALK, M.D.,	Providence, R. I.
THOMAS SHEARER, M.D.,	Baltimore.
T. Y. KINNE, M.D.,	Paterson, N. J.
H. B. VAN NORMAN, M.D.,	Cleveland, O.
S. P. HEDGES, M.D.,	Chicago.
S. J. BUMSTEAD, M.D.,	Pekin, Ill.
O. S. RUNNELS, M.D.,	Indianapolis.
WILLIAM BUDD TRITES, M.D.,	Philadelphia.

AN EXTRA ASSESSMENT.

S. R. BECKWITH, M.D., moved that the By-laws be so amended that the initiation fee be increased to five dollars, and that two dollars and fifty cents be charged, over and above the annual fee of five dollars, for a bound copy of the *Proceedings of the World's Homœopathic Convention*. He explained that the object of the motion was to provide funds to meet the expenses of the convention, including the publication of its Proceedings, and that it was to be operative for but one year. After the matter had been discussed at length,

A. E. SMALL, M.D., of Chicago, offered the following as a substitute for Dr. Beckwith's motion:

Resolved, That two dollars and fifty cents be assessed for the next year on each member of the American Institute of Homœopathy, including both

seniors and juniors, towards defraying the expenses of the World's Homœopathic Convention of 1876.

DR. SMALL'S resolution was agreed to unanimously.

J. P. DAKE, M.D., under a suspension of the order of business, moved an amendment to the By-laws, transferring the department of Hygiene from the Bureau of Anatomy, Physiology and Hygiene to the Bureau of General Sanitary Science and Climatology.

Agreed to.

The Chairman of the Bureau of Anatomy, Physiology, and Hygiene was thereupon, by vote, empowered to reorganize that bureau, if he deemed it necessary to do so.

It was moved and seconded that the Chairman of the Bureau of General Sanitary Science, Climatology, and Hygiene be empowered to reorganize that bureau, but after some discussion the motion was laid on the table.

CARROLL DUNHAM, M.D.: I have a resolution to offer by request of the *Senior Members of the Institute*, which was adopted by that body for presentation to the Institute, with the request that it be passed. It is as follows:

Resolved, That in consideration of the valuable services rendered by George E. Shipman, M.D , of Chicago, to Homœopathy and to the American Institute of Homœopathy, he be constituted a member of the Corps of Seniors.

(Signed), A. E. SMALL, President.
DAVID THAYER, Secretary.

On motion, the resolution was unanimously agreed to.

THE VICE-PRESIDENT: The next business in order will be the report of the

COMMITTEE ON HOMŒOPATHIC COLLEGES.

A. E. SMALL, M.D., of Chicago, Chairman of the Committee, made the report. Objection being made to the presentation of special reports from certain colleges,

S. R. BECKWITH, M.D., moved that the first part only of the report be accepted and referred to the Committee of Publication.

DAVID THAYER, M.D., explained, on behalf of the committee, that the objectionable portions were not intended as a part of the committee's report.

The motion to receive and refer was then agreed to. (Section I, Art. XLVIII.)

INTERCOLLEGIATE COMMITTEE.

DAVID THAYER, M.D., of Boston, Chairman of the Committee, presented the report, which was as follows:

TO THE AMERICAN INSTITUTE OF HOMŒOPATHY:

As the prosperity of the American Institute of Homœopathy must largely depend upon the character and qualifications of its members, as well as upon the character of the colleges by which they are accredited as physicians, your committee have carefully considered the various subjects of importance which tend to these desirable ends, and present their conclusions in the accompanying report.

One of the prominent objects in the creation of the Intercollegiate Committee was that of aiding all the homœopathic colleges in the country to adopt a uniform system of education and requirement.

Your committee have received able reports from the Homœopathic Medical College of Missouri, by E. C. Franklin, M.D.; from the New York Homœopathic Medical College, by J. W. Dowling, M.D.; from the Hahnemann Medical College of Philadelphia, by A. R. Thomas, M.D., and H. N. Martin, M.D.; from the New York Medical College and Hospital for Women, by Alfred K. Hills, M.D.; and from the Boston University School of Medicine, together with the annual announcements of other institutions.

Your committee, after considering these reports, advise that the American Institute of Homœopathy constitute itself the guardian of all the homœopathic colleges of the country, and hereby recommend the following as a suitable system of collegiate education in medicine.

It is a matter of great importance, both to the students and to the colleges, that the requirements in the preliminary examination for admission shall be uniform in every respect, and that the standard of education be considerably elevated. To this end, the following arrangement is recommended:

The course of instruction shall be a graded one, and shall extend through a period of three years.

The first year shall be called the *Junior Year*, and the class the *Junior Class.*

The second year shall be called the *Middle Year*, and the class the *Middle Class.*

The third year shall be called the *Senior Year*, and the class the *Senior Class.*

After February, in the year 1877, students seeking admission to any of the homœopathic colleges must present a degree in letters or science from

a recognized college or scientific school, or pass an examination in those branches of learning, a knowledge of which constitutes a good English education; and shall show evidence of some knowledge of algebra and geometry, and such knowledge of the physical sciences as is to be acquired from the common treatises on natural philosophy. It is also recommended that they shall possess sufficient knowledge of Latin and Greek as will enable them to understand the etymology of the technical language of the profession. These examinations shall be both oral and written. Certificates of good moral character shall be required in all cases.

Applicants for admission to the Middle Class shall pass an examination in the studies of the Junior Class; and applicants for admission to the Senior Class shall pass an examination in the studies of both the Junior and Middle Classes.

Graduates in medicine, from recognized medical schools whose curriculum of study shall equal that prescribed by the American Institute of Homœopathy, may become members of the colleges without examination.

Students may be admitted *conditionally* to any of the classes, their deficiencies to be made up during the scholastic year.

The examination for the Degree shall be conducted by the Faculty and such Censors, Curators, or Boards of Physicians as exist or may be appointed.

Every student who shall pass a satisfactory examination, and shall have fulfilled all his obligations to his college, shall be recommended for the degree of Doctor in Medicine.

Text-books.—Books adapted to the study of the theory and practice of homœopathy should be preferred to those written for use in allopathic colleges, on the subjects of medicine, surgery, and the collateral branches of medical science.

The Lecture Term shall extend through five months, and the *Summer Term* through three months. Attendance on the summer term shall not be obligatory.

Courses of Study.—The following courses of study are recommended:

Junior Class: Anatomy, general and descriptive; Natural Philosophy and Chemistry; Physiology and Microscopic Anatomy; Pharmacy; Practical Anatomy.

Middle Class: Institutes of Homœopathy; Practice; Clinical Medicine; General Pathology; Materia Medica; Clinical Surgery; Practical Anatomy; Practical Surgery.

Senior Class: Practice; Clinical Medicine; Special Pathology and Diagnosis; Materia Medica; Surgery; Clinical Surgery; Midwifery, and Diseases of Women and Children; Psychology; Toxicology and Medical Jurisprudence.

Every member of the American Institute of Homœopathy shall have the right to add to his name, after the M.D., the initial letters *A. I. H. S.* (*Americæ Institutionis Homœopathiæ Socius.*)

ON THE UNION OF THE COLLEGES.

The question of the practicability of uniting our numerous colleges into one, two, or three large universities, though often talked of, has never

been brought to a vote in any of those colleges, and the subject has never been duly considered in the Institute. In the opinion of your committee, the time has now come when the interests of homœopathy require that its friends shall take this matter into earnest consideration.

MICHIGAN UNIVERSITY HOMŒOPATHIC MEDICAL COLLEGE.

Your committee would recommend the adoption of the following preamble and resolutions:

WHEREAS, The Legislature of the State of Michigan has recently enacted a law providing for the establishment of a homœopathic medical department in the University of Michigan, and the appropriation of State funds for sustaining the same; and

WHEREAS, The Regents of the University have been and are using their best efforts to establish this department on a secure basis; therefore

Resolved, That the American Institute of Homœopathy appreciates the action of said Legislature and the Regents and Chancellor of said University.

Resolved, That we hereby concur in and approve of the action of said Regents and Chancellor in their efforts to elevate and extend the standard of medical education.

Resolved, That a copy of these preambles and resolutions be sent to the Governor of the State of Michigan and the Chancellor of the University.

The Intercollegiate Committee is constituted as follows:

New York Homœopathic Medical College.

J. W. DOWLING, M.D.
H. D. PAINE, M.D.

New York College and Hospital for Women.

A. K. HILLS, M.D.
S. LILIENTHAL, M.D.

Hahnemann Medical College of Philadelphia.

A. R. THOMAS, M.D.
H. N. MARTIN, M.D.

Cleveland Homœopathic Hospital College.

N. SCHNEIDER, M.D.
H. H. BAXTER, M.D.

Pulte Medical College, Cincinnati, O.

S. R. BECKWITH, M.D.
J. D. BUCK, M.D.

Hahnemann Medical College, Chicago.
J. S. MITCHELL, M.D.
T. S. HOYNE, M.D.

St. Louis Homœopathic Medical College.
E. C. FRANKLIN, M.D.
J. T. TEMPLE, M.D.

Boston University School of Medicine.
I. T. TALBOT, M.D.
DAVID THAYER, M.D.

Respectfully submitted on behalf of the Committee,

DAVID THAYER,
Chairman.

On motion the report was accepted, and referred to the Committee of Publication.

A motion was made that the Institute adopt the suggestions of the committee; but it was subsequently withdrawn after considerable discussion.

J. H. MCCLELLAND, M.D., of Pittsburg, Pa., on behalf of the Bureau of Surgery, asked for and obtained permission to add several papers, not yet prepared, to the papers of the bureau, to complete the treatise on Fractures and Dislocations.

THE VICE-PRESIDENT: The next business will be the presentation of the report of the

COMMITTEE ON THE WORLD'S HOMŒOPATHIC CONVENTION.

CARROLL DUNHAM, M.D., Chairman of the Committee, read the report, which was accepted and referred to the Committee of Publication. (Section I, Art. XLVII.)

DAVID THAYER, M.D., offered the following resolution:

Resolved, That the Institute receive and adopt the report of the Committee of Arrangements of the World's Homœopathic Convention; that it renew the authority and instructions given to the Committee of Arrangements in 1874; and that it authorize and direct the committee to proceed to execute the measures proposed by it as stated in the report of the committee just submitted.

Adopted unanimously.

J. P. DAKE, M.D., of Nashville, Tenn., moved that the Secretary be and is hereby instructed to issue, as soon as possible after the adjournment of the Institute, so much of the transactions as refer to business, appointments, etc.

Agreed to.

DR. CARROLL DUNHAM reminded the Institute that at the preceding session he had presented the name of Dr. Bernardino Dadea, of Turin, Italy, for election to honorary membership, and moved his election. Dr. Dadea was thereupon unanimously elected an honorary member.

It was moved and carried that Drs. J. P. Dake, of Nashville, Tenn., R. B. Rush, of Salem, O., and J. J. Youlin, of Jersey City, N. J., be appointed, in conjunction with Drs. I. T. Talbot and R. Ludlam, delegates to represent the Institute and the interests of the World's Homœopathic Convention in Europe.

DR. CARROLL DUNHAM: I present the names of the following physicians as candidates for honorary membership, to be voted on at the next annual meeting of the Institute:

DR. ADOLPHUS GERSTEL, . . .	Vienna, Austria.
DR. VON GRAUVOGL, ...	Nuremberg, Germany.
DR. J. P. JOUSSET, ...	Paris, France.
DR. CLOTAR MULLER, . . .	Leipzig, Germany.
DR. R. E. DUDGEON, ...	London, England.

THE VICE-PRESIDENT: We will now hear the report of the

COMMITTEE ON CREDENTIALS.

G. H. WILSON, M.D., of West Meriden, Conn., Chairman of the Committee, presented the report, which was, on motion, accepted and referred to the Committee of Publication.

The report contained the following statistics:

Physicians present, ...	126
Members present, ...	116
Seniors present, ...	7
State societies represented, ...	12
Local societies represented, ...	29

Colleges represented,	9
Hospitals and asylums represented,	15
Dispensaries represented,	18
Journals represented,	9
States represented,	17

The number of representatives from the several States were as follows:

Colorado,	1
Connecticut,	2
Illinois,	9
Iowa,	2
Indiana,	7
Kentucky,	1
Maryland,	1
Massachusetts,	8
Michigan,	11
Minnesota,	1
Missouri,	2
New Jersey,	1
New York,	20
Ohio,	41
Pennsylvania,	20
Rhode Island,	1
Tennessee,	1
Vermont,	1
Wisconsin,	8
District of Columbia,	1

CARROLL DUNHAM, M.D., moved to amend the By-laws, by adding to Section 16 of Art. VII the following sentence:

No member of the Institute shall be chairman of more than one bureau or standing committee.

Agreed to.

S. R. BECKWITH, M.D., offered the following resolution:

Resolved, That no expense be incurred by the Executive Committee in excess of the amount of money in the hands of the Treasurer.

After considerable discussion the resolution was not agreed to.

D. S. SMITH, M.D., of Chicago, offered the following resolution, which was unanimously adopted:

Resolved, That the thanks of the Institute are due and are hereby tendered to the officers of the Institute, for the faithfulness and courtesy with which they have fulfilled their arduous duties.

THE VICE-PRESIDENT returned thanks on behalf of the officers.

On motion of the General Secretary, the Institute then adjourned.

COMPLETE REPORT OF THE BOARD OF CENSORS.

ADAMS, FRANK S., M.D., Springfield, O.,	Pulte Med. Coll., O., 1875.
ALLING, C. P., M.D., Dunkirk, N. Y.,	Cleveland Hom. Med. Coll., 1861.
AUSTIN, JOHN, M.D., Norwalk, O.,	Cleveland Hom. Med. Coll., 1869.
BAHRENBURG, WM. N., M.D., Indianapolis, Ind.,	Hah. Med. Coll., Philada., 1874.
BAKER, MILTON H., M.D., Highland Park, Ill.,	Hah. Med. Coll., Chicago, 1868.
BARR, FRANK H., M.D., Cleveland, O.,	Cleveland Med. Coll., 1870.
BEDELL, R. HEBER, M.D., Tremont, New York City, N. Y.,	N. Y. Hom. Med. Coll., 1875.
BENNETT, ASAHEL M., M.D., Rochester, N. Y.,	N. Y. Hom. Med. Coll., 1870.
BOSLEY, S. CLEMENT, M.D., Lost Creek. W. Va.,	Hah. Med. Coll., Philads., 1872.
BOWMAN, JOHN R., M.D., Grand Rapids, Mich.,	N. Y. Hom. Med. Coll., 1874.
BUTLER, CLARENCE W., M.D., Montclair, N. J.,	N. Y. Hom. Med. Coll., 1872.
BREYFOGLE, EDWARD S., M.D., San Jose, Cal.,	Hah. Med. Coll., Philada., 1874.
CARLETON, EDMUND, JR., M.D., New York,	N. Y. Hom. Med. Coll., 1871.
CHAPMAN, MILLER J., M.D., Pittsburg, Pa.,	Cleveland Hom. Med. Coll., 1874.
CHILDS, ORIN D., M.D., Akron, O.,	Cleveland Hom. Med. Coll., 1867.
CONNOR, DELANIA T., M.D., New Haven, Conn.,	N. Y. Med. Coll. for Women, 1874.
COWPERTHWAITE, ALBERT C., M.D., Nebraska City, Nebraska,	Hah. Med. Coll., Philad'a, 1869.
CRAWFORD, JOHN S., M.D., Pittsburg, Pa.,	Hah. Med. Coll., Philad'a, 1875.
CROSS, LESTER E., M.D., Stockton, Cal.,	Hom. Med. Coll. of Missouri, 1873.
DART, GEORGE, M.D., Depeyster, N. Y.,	Detroit Hom. Med. Coll., 1875.
DART, JAMES M., M.D., Crawford, N. J.,	N. Y. Hom. Med. Coll., 1875.
DESCHERE, MARTIN, M.D., New York,	N. Y. Hom. Med. Coll., 1875.
DAWS, FIELDING L., M.D., Evansville, Ind.,	Cleveland Hom. Med. Coll., 1870.
DODGE, RODOLPH L., M.D., Portland, Me.,	Boston University School of Med., 1875.
DOOLITTLE, EGBERT D., M.D., Morristown, N. J.,	Bellevue Hosp. Med. Coll., 1870.
DRAKE, HARLOW B., M.D., Detroit, Mich.,	Hah. Med. Coll., Philad'a, 1873.
EVERETT, AMBROSE S., M.D., St. Louis, Mo.,	St. Louis Coll. of Hom. Phys. and Surgs., 1871.
FORD, JULIA, M.D, Milwaukee, Wis.,	Cleveland Hom. Med. Coll., 1871.
FOSTER, FRED. H., M.D., Chicago, Ill.,	Hah. Med. Coll., Chicago, 1870.
FRASER, EDWARD J., M.D., San Francisco, Cal.,	Hah. Med. Coll., Chicago, 1864.
FRENCH, HAYES C., M.D., Cleveland, O.,	University of Mich. Med. Dept., 1865.
GREENE, WM. BOWEN, M.D., Providence, R. I.,	Berkshire Med. School, Mass., 1864.
GUERNSEY, JOSEPH C., M.D., Philadelphia, Pa.,	Hah. Med. Coll., Philad'a, 1872.
HART, CLEMENT L., M.D., Sioux City, Iowa,	N. Y. Hom. Med. Coll, 1872.
HEDGES, WILLIAM S., M.D., Warrensburg, Mo.,	Hom. Med. Coll. of Missouri, 1869.
HOUSE, ROBERT B., M.D., Tecumseh, Mich.,	Cleveland Hom. Med. Coll., 1869.
HASBROUCK, EVERETT, M.D., Brooklyn, N. Y.,	N. Y. Hom. Med. Coll., 1865.
HILLS, ARTHUR T., M.D., New York,	N. Y. Hom. Med. Coll., 1875.
JENKS, GEORGE HENRY, M.D., San Francisco, Cal.,	Hah. Med. Coll., Philad'a, 1875.
JONES, LEONIDAS M., M.D., Brooklyn, Mich.,	Cleveland Hom. Med. Coll., 1858.
KNIGHT, GEORGE R., M.D., Collegeville, Pa.,	Hah. Med. Coll., Philad'a, 1873.

KNICKERBOCKER, SIMEON C., M.D., Watertown, N. Y.,	Cleveland Hom. Med. Coll., 1861.
KORNDORFER, AUG., M.D., Philadelphia, Pa.,	Hah. Med. Coll., Philad'a, 1868.
KLINE, JOHN WESLEY, M.D., Louisville, Ky.,	Hah. Med. Coll., Philad'a, 1871.
LEWIS, JOS. CRESWELL, M.D., Frankford, Philada.,	Hah. Med. Coll., Philad'a, 1875.
LOWES, JOSEPH E., M.D., Dayton, O.,	Cleveland Hom. Med. Coll., 1866.
LUKENS, BENJAMIN F., M.D., Troy, O.,	Hah. Med. Coll., Chicago, 1869.
MCGUIRE, DAVID J., M.D., Norwalk, O.,	Wooster University, Cleveland, O., 1849.
MCGRANAGHAN, WM. H., M.D., Maysville, Ky.,	Eclectic Med. Coll., Cincinnati, 1848.
MILLER, CHRISTOPHER C., M.D., Detroit, Mich.,	Hom. Med. Coll. of Penna., 1868.
MITCHELL, JOHN N., M.D., Philadelphia, Pa.,	Hah. Med. Coll., Philad'a, 1873.
MORDON, RALPH J. P., M.D., London, Ontario, Canada,	N. Y. Hom. Med. Coll., 1862.
MOORE, GEORGE W., M.D., Springfield, O.,	Cleveland Hom. Med. Coll., 1870.
MURRELL, WILLIAM J., M.D., Mobile, Ala.,	N. Y. Hom. Med. Coll., 1861, and University of New York, 1861.
NEVILLE, ABBIE S. J., M.D., Randolph, N. Y.,	Cleveland Hom. Med. Coll., 1870.
PALMER, GEORGE H., M.D., St. Clair, Mich.,	N. Y. Hom. Med. Coll., 1865.
PEARCE, ROBERT W., M.D., Louisville, Ky.,	University of Louisville, Ky., 1852.
ROBINSON, JOHN T., M.D., Warsaw, Ky.,	Cleveland Hom. Med. Coll., 1860.
ROBERTSON, GEORGE A., M.D., Chelsea, Mich.,	Cleveland Hom. Med. Coll., 1867.
ROWELL, CHARLES E., M.D., Lancaster, N. H.,	N. Y. Hom. Med. Coll., 1875.
RUKENBROD, WALTER E., M.D., Salem, O.,	Pulte Med. Coll., Cincinnati, O., 1875.
RUNNELS, MOSES T., M.D., Franklin, Ind.,	Cleveland Hom. Hosp. Coll., 1874.
SCHLEY, JAMES MONTFORT, M.D., New York,	Savannah Med. Coll., Savannah, Ga., 1872.
SELFRIDGE, JAMES M., M.D., Oakland, Cal.,	University of Buffalo, 1852; Jefferson Med. Coll., Philad'a, 1856.
SHAW, GEORGE R., M.D., Ripon, Wis.,	Coll. of Phys. and Surgs., N.Y.City, 1852.
SHERMAN, LEWIS, M.D., Milwaukee, Wis.,	University of New York, 1870.
SKINNEY, ANDREW B., M.D., Detroit, Mich.,	Cleveland Hom. Med. Coll., 1859.
TAYLOR, ESTHER W., M.D., Freeport, Ill.,	Hah. Med. Coll., Chicago, 1872.
THOMAS, CHARLES M., M.D., Philadelphia, Pa.,	Hah. Med. Coll., Philad'a, 1871.
TERRY, MARSHALL O., M.D., Utica, N. Y.,	Cleveland Hom. Med. Coll., 1872.
UNDERWOOD, HELEN J., M.D., Chicago, Ill.,	N. Y. Med. Coll. and Hosp. for Women, 1875.
VALENTINE, PHILO E., M.D., St. Louis, Mo.,	New Orleans Med. Coll., 1866.
WILSON, WILLIAM W., M.D., Rockford, Mich.,	Hah. Med. Coll., Chicago, 1871.
WHITNEY, EDWARD J., M.D., Brooklyn, N. Y.,	University of New York, 1862.
WIHANS, JONATHAN EDWARDS, M.D., Newark, N. J.,	N. Y. Hom. Med. Coll., 1875.
WOODS, STEPHEN, M.D., Pittsburg, Pa.,	Hah. Med. Coll., Philad'a, 1875.
YEOMANS, CLARA, M.D., Clinton, Iowa,	Hah. Med. Coll., Chicago, 1870.

XLIV.

TREASURER'S REPORT.

DR. E. M. KELLOGG, TREASURER, IN ACCOUNT WITH THE AMERICAN INSTITUTE OF HOMŒOPATHY. CR.

1874.	By balance,	$337.23	1874.		
1875.	By receipts from members,	3060.60	June 11.	To bill of stenographer,	$275.00
		$3397.83	July 13.	for printing,	8.75
				postage and stationery,	117.10
				expressage on Transactions,	31.72
				mailing Legislative Circulars,	35.00
				engrossing and mailing certificates,	28.75
			1875.	Paid General Secretary's bills for clerical services, printing and binding Transactions, miscellaneous printing, postage, stationery, etc.,	2800.00
				To cash in hand,	101.51
					$3397.83

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AUDITORS' REPORT.

The Auditing Committee report that they have examined the accounts and vouchers of the Treasurer, and find them correct.

Attest: ORREN S. SANDERS, M.D.
E. V. VAN NORMAN, M.D.
JOHN E. JAMES, M.D.

XLV.

REPORT

OF THE

COMMITTEE ON A HOMŒOPATHIC DISPENSATORY.

THE Committee respectfully report the work substantially completed, the long-continued illness of a member of the pharmaceutical section having delayed and for a time arrested the final transcription, which is now in progress again.

In behalf of the Committee,

CARROLL DUNHAM, M.D.,
Chairman.

XLVI.

NECROLOGICAL REPORT.

By Henry D. Paine, M.D.

Necrologist.

PELEG CLARK, M.D.

This truly venerable member of the medical profession, and one of the oldest veteran founders of the Institute, departed this life on the first day of January, 1875, at East Providence, R. I., in the 91st year of his age. Although connected with this Society from its formation, Dr. Clark was not generally known to its more recent membership, his advanced age having long since precluded his personal attendance at its meetings. Within the circle of his influence, however, embracing the whole State of Rhode Island, the effect of his example in adapting, and of his success in practicing, the new system has been remarkable. He was already 60 years old, and in the enjoyment of an enviable reputation as a practitioner, when his attention was first arrested by the claims of homœopathy. No wonder that the spectacle of such a man, universally esteemed for his honesty of purpose and uncompromising hostility to charlatanry of every kind, renouncing the principles in which he had been trained and the methods that he had pursued for nearly forty years, and openly espousing a new and as yet unpopular system, should produce a profound impression in the community and upon numbers of his younger colleagues in the profession.

This revolution in his opinions and practice was not, however, effected without prolonged and careful study and reflection. It was his custom for many years to keep a meteorological record,

and at the end of each month to add some observations upon passing events. Numerous entries in this diary indicate a waning confidence in the accustomed methods of treatment a long time before he had any opportunity of acquainting himself with the system of Hahnemann, and the gradual growth of his convictions, as through many months he steadily and candidly examined its claims and watched the results of his cautious trials.

Dr. Clark was a native of the State in which he spent his long and virtuous and useful life. He was born in Richmond, R. I., August 5th, 1784. He came of a long-lived ancestry; his father, grandfather, and great-grandfather having respectively attained the ages of 81, 84, and 97 years. He diligently availed himself of the best advantages accessible in his day for obtaining a medical education, and after attending the medical lectures in Brown University, commenced practice in 1808. For nearly sixty years he unremittingly pursued his honorable calling in the towns and villages of Central Rhode Island.

He was one of the founders of the Rhode Island (Allopathic) Medical Society, and also, in later years, of the Rhode Island State Homœopathic Medical Society.

Dr. Clark seems not to have contributed much to the literature of homœopathy. He was, however, in other ways one of the most earnest and successful promoters of its principles. A consistent and undaunted advocate of what he believed to be right, he never hesitated to uphold the superior claims of the system which his matured judgment had commended to his acceptance. It is undoubtedly owing to the influence of his character, advocacy, and teaching, that homœopathy has obtained the widespread and deeply rooted confidence which is so conspicuous in parts of Rhode Island.

Laborious and faithful as he was in his calling, he did not confine his efforts or his thoughts to that horizon, but was zealous and active in various other reforms. In particular, he was an earnest advocate of the temperance movement, and was one of the earliest adherents of the antislavery cause. For many years he was President of the Rhode Island Antislavery Society.

In personal appearance he was naturally of a stalwart and

shapely frame, with a countenance beaming with benevolence and good humor. Clad in sober drab of the olden style, so peculiarly becoming to men of his figure, his presence always commanded involuntary respect, which his never-failing cheerfulness, his charity, and his unaffected tenderness for the sick and suffering speedily ripened into affectionate veneration.

Dr. Clark was the father of our associates in the Institute, Dr. John N. Clark, of Fall River, Mass., and Prof. H. B. Clark, of the Boston University.

BENJAMIN FRANKLIN BOWERS, M.D.

This veteran physician and scholar, whose name is a household word among American homœopathists, was born in Billerica, Mass., in September, 1796. He received his education with his brother at Yale College, and graduated from the medical department of that institution in 1819. Reared with all the peculiarities and prejudices which characterized the allopathic school at that time, he subsequently established himself in New York City, in association with Dr. B. F. Joslin.

At this early period of his public life even he was noted for his energy, enterprise, and fearlessness of action. From his prominent position in every philanthropic project he was chosen, in 1839, assistant physician to the New York Dispensary in Centre Street.

Up to this period his instincts and his sympathies had been so warmly enlisted on the side of allopathy, that when brought into contact with homœopathic practitioners (the natural consequence of his official position) he exhibited a violent antipathy and antagonism to their method of treatment. But with that innate love of truth and fair play that was characteristic of him, he determined on a thorough and practical investigation of the principles of the Hahnemannian code, and, therefore, availed himself of the opportunites at hand to test it by a practical application. He entered upon his homœopathic studies a skeptic and a scoffer—he carefully compared the results of the two methods of treatment—and emerged from the ordeal one of the most sincere, enthusiastic, and logical advocates that homœopathy has ever possessed. He openly declared his conversion; and

fully awake to the sacrifice of income and professional position which it involved, determined that principle, not pelf, should be the guide of his action. As was to be expected, the immediate result of his secession from the allopathic ranks was his unceremonious dismissal from the dispensary.

His professional and administrative talent was, however, quickly appreciated by his new allies. After several years of busy private practice, he was, in 1847, appointed physician to the Protestant Half-Orphan Asylum in New York City. This institution was the first in the city to permit the practice of homœopathy, and within its walls some of the most signal triumphs of its principles have been exemplified. Dr. Bowers assumed the medical management of the asylum in 1847, and in a period of over twenty-seven years, during which it has continued under homœopathic supervision, the deaths—out of 2548 children that have been recipients of its bounty—have amounted to 48 only. While connected with this institution, he published some interesting statistics of the relative mortality of the other orphanages in the city as compared with the results observed by himself in this one during twelve years of homœopathic treatment. The contrast in favor of the new method was truly remarkable. In six orphanages under allopathic regimen the proportion of deaths was 1 in 41; while in this under homœopathic administration it was only 1 in 146.

From the college to the grave Dr. Bowers was essentially and exceptionally a *working man*. Usefulness, not honors, was his goal. He was a member of the New York Historical Society, of the New York County and State Homœopathic Medical Societies, and of the American Institute of Homœopathy (of which he was one of the honored founders), and of various other scientific associations, and in all an unobtrusive but diligent worker. He was an earnest advocate and promoter of sanitary and other medical and social reforms, and for his fearless and intelligent efforts he deserves the grateful memory of his surviving colleagues who are interested in the same cause.

His literary contributions have been both numerous and valuable. As early as 1846 he published, in the *Homœopathic Examiner*, "Reasons why Homœopathy should receive an impartial

examination from the Medical Profession and the Public," in which he stated with convincing cogency the facts and arguments in favor of the new system. At a later period of his active life, during the prevalence of a cholera epidemic, he published in an official report some strictures upon the old-school treatment of that disease, memorable for their unanswerable pungency.

On the creation of a board of health for the metropolitan district, his appointment as one of the commissioners was urgently and unanimously pressed by the homœopathic branch of the profession.

The most extraordinary incident of his professional life was, however, reserved for his later years, in fact after he had almost entirely retired from active practice, and when he had reached the verge of fourscore. Soon after the appointment of the State Board of Medical Examiners by the Regents of the University of New York, he voluntarily entered upon a thorough review of all the departments of medical science, with a view of presenting himself as a candidate for the State degree. So well had he kept pace with the current progress of scientific improvement and discovery that he was able, after a comparatively brief preparation, to sustain a protracted ordeal of unexampled severity in this country; and, to the astonishment and admiration of the Board of Examiners and his professional colleagues, exhibited an erudition in all the subjects embraced in the comprehensive scheme established by the Regents that under any circumstances would have been remarkable. He was the first successful candidate for this distinction, and was nearly eighty years of age when it was conferred. Our wonder at his success cannot but be greatly enhanced when it is known that several of the branches included in the searching inquisition, such as histology, are of recent origin, or, like chemistry, have undergone such revolutionary changes as to render them virtually new sciences.

The record of this examination, in all its details of question and answer, is on file in the archives of the university. No nobler monument to the industry and learning of our departed friend and associate could be devised than its publication in full.

Within a few weeks after receiving this well-merited distinc-

tion, in the month of February, 1875, this exemplary Christian, generous philanthropist, and learned physician, entered into his rest.

RICHMOND BRADFORD, M.D.

Richmond Bradford, M.D., for many years a member of the American Institute of Homœopathy, died at his residence in Auburn, Maine, on the 21st day of December, 1874, seventy-three years of age.

Dr. Bradford was born in Turner, Maine, of the oldest Puritan lineage, he being a direct descendant of Governor William Bradford of the Plymouth Colony.

He was the youngest of five children, and, like them, received from his early boyhood that training and education characteristic of the stern morality and rigid exactitude of Puritan culture. At his mother's knee he was taught the simple principles of the Christian religion, which, in after life, made him eminent as a Christian gentleman and physician.

Of delicate health, and unusually fine natural affinities, he had no taste as a boy for the rough sports of his robust brothers, but found his most congenial companionship in nature and in books. He fitted for college chiefly under the tutorship of his pastor, Rev. Allen Greely. Through his own labors in teaching he defrayed the expenses of his education in Bowdoin College, where he entered as sophomore, graduating in the class of 1825. In the same class were the poet Longfellow, the novelist Hawthorne, the historian J. S. C. Abbott, and the Rev. George B. Cheever. Among the letters received by the family of the deceased from his surviving classmates, the poet Longfellow has written: "I remember 'Bradford' (now fifty years since I saw him) as one of the most popular men in college, a quiet, studious youth, very modest and retiring, and with his lessons always well prepared."

In 1829 he received the degree of "Doctor in Medicine" from the Maine Medical College, and began the practice of his profession in the small village of his native town.

He was greatly encouraged and assisted by the family of Major Daniel Cary, whose youngest daughter he afterwards married.

Here he worked for six years. Day after day he rode on

horseback (the doctor's mode of conveyance in that day), in rain and sunshine, over the hills and through the valleys, carrying his medicines and instruments in saddle-bags, which, with their crude contents, still hang in the attic of his late residence, in strange contrast with the infinitesimal doses of his later prescriptions.

In 1835, having acquired a widespread and well-earned reputation as a physician and surgeon, he removed to Auburn, a village ten miles nearer the seashore, and tenfold larger in population. There was but one physician in the adjoining villages of Auburn and Lewiston, Dr. Calvin Gorham, with whom Dr. Bradford entered into warm and lasting friendship. In this place he spent his life in the active pursuit of his profession. He practiced "allopathy" for twenty years. Dissatisfied with what he characterized "a heroic, routine, and empirical treatment," he embraced "homœopathy."

This step was not taken hastily, but after studious effort to inform himself; not because unsuccessful in practice, for he had a large and lucrative practice, but in spite of prospects of diminished popularity, and of his own natural conservatism. He diligently pursued many series of provings, corresponded with eminent authorities, worked and sacrificed fearlessly, and displayed such earnestness and sincerity in his belief that he carried, as by a storm, hundreds of his fellow-citizens, including his old friend Dr. Gorham, with the confession of faith in "infinitesimal doses." He proceeded to Philadelphia, followed a course of study at the Homœopathic College, and returned to Auburn, dating a new era in his professional career. This was the inauguration of homœopathy in this part of the State. The work steadily advanced till its power was fully recognized, and its humane service everywhere welcomed. Thus Dr. Bradford became one of the pioneers of homœopathy in the State of Maine; thus he lived to be the oldest physician in the county where he resided.

He was Fellow and Corresponding Member of the Homœopathic College, Philadelphia; Member of the American Institute of Homœopathy, etc., etc. The *Lewiston Journal*, in a sketch of the life and character of Dr. Bradford, says he was

a man of positive Christian profession and practice, an ardent friend, a valuable and conscientious citizen. For many years he was Deacon of the Congregational Church, and Superintenent of the Sabbath-school. He was greatly interested in educational matters; was one of the trustees of Lewiston Falls Academy. He was one of the best linguists in the State, and was so fond of scholarly pursuits, that he was accustomed to read Latin and Greek in his leisure hours up to the last year of his life. He leaves a brother (Calvin Bradford) and three children, Dr. H. C. Bradford, Lewiston, Maine; Dr. F. D. Bradford, New York City; and a daughter, whose assiduous care was a blessing to the last years of the father she loved so much. In the death of Dr. Bradford, Auburn and Lewiston lose a ripe Christian, a cultivated scholar, a sympathetic and skilful physician, and this Institute one of its most worthy members.

ALBERT WRIGHT, M.D.

In the death of this faithful and exemplary physician this Institute witnesses the removal of another of its old landmarks, and the profession one of its noblest representatives. Dr. Wright was born at Cambridge, Washington County, New York, April 14th, 1804, and departed this life December, 1874, having nearly completed his 71st year.

His youthful life presented no remarkable incident. As the son of a well-to-do farmer he received a good common school education; his subsequent success as a medical student and practitioner was therefore due to his own determined perseverance and energy. Notwithstanding many difficulties and obstacles, he graduated with honor from the Vermont Academy of Medicine in 1831. After gaining his degree he practiced according to the methods in which he had been instructed until about 1849, when he became thoroughly dissatisfied with the traditions of the allopathic school; he placed himself under the instruction of Drs. Freeman and S. R. Kirby, but without at first committing himself to the adoption of homœopathy. It was not, indeed, until the latter part of 1850 that he announced himself as a convert to the system of Hahnemann, to which he remained a sincere and earnest adherent while he lived.

After his adoption of homœopathy he practiced for a time in New York, but subsequently removed to Williamsburg (now part of Brooklyn), N. Y., where he continued his labors until his death.

He was emphatically a self-made man, and unlike many of that class he was singularly unostentatious, liberal-minded, and even-tempered. His mind was deeply imbued with sentiments of honor and integrity. He was essentially and devotedly a religious man, and at an early age became a member of the Presbyterian Church, in which he was widely known as a liberal-minded and consistent member.

After his adoption of homœopathy he was one of the thirty original founders of the Homœopathic Society of Kings County, in 1858, was elected its Vice-President in 1858, and became its President in 1859, and again in 1866.

He was elected a member of the American Institute of Homœopathy in 1858, and was a frequent attendant at its sessions.

In the New York State Society, of which he was a prominent member, he was a zealous and judicious worker.

It is a remarkable and noteworthy circumstance that notwithstanding his unhesitating advocacy of the homœopathic doctrines, such was his reputation for honesty and sincerity of purpose among his professional colleagues of the allopathic school, that they continued to regard him personally with the same cordial respect as before. Their honorable estimate of his character as a physician and a man found expression, after his death, in a series of resolutions adopted by the trustees of the Eastern District Dispensary and Hospital, of which the following is an extract:

Resolved, That the sudden death of Dr. Albert Wright, one of the oldest and most respected members of the medical profession in this city, calls for an expression of regret on our part, and of sympathy with his family and friends. Removed almost instantly from a sphere of usefulness, which he has filled with marked ability and success, and compelled finally to surrender to that foe he had so often met and overcome in behalf of others, the event makes us painfully conscious of the fact that we all, sooner or later, must yield ourselves to that ultimate Victor of human life—whether that life be protected and defended after our own fashion, or after the fashion of others. We desire to recognize that at the grave all differences should cease, and we mingle our grief and our sympathies in common with that large circle of

society which will so keenly feel the great loss they have sustained by this sad event.

From this quotation it will be seen in what universal estimation our late colleague was held by all classes and parties in the large community in which he so long faithfully labored. By the poor he was revered and almost idolized; in his own station in society he was regarded as a wise and skilful counsellor and firm friend, as well as true physician. His funeral was attended by an immense concourse of mourners, representing every class of the community—the official circle, the clergy, the medical brethren of both schools, the people of wealth and culture, and great numbers of the poor who came together to pay their last farewell to his remains. All the papers of the city contained some notice of the occasion, accompanied by honorable mention of his virtues, and expressions of regret at the loss of so upright and good a citizen.

JAMES H. P. FROST, M.D.

By the death of Professor Frost, in the very midst of his brilliant career, the Institute has lost one of its most active, talented, and useful members. After a life of earnest devotion to science, under frequent discouragements arising from infirm health, he departed this life January 21st, 1875, at Danville, Pa., in the 50th year of his age.

Our lamented colleague was born May 24th, 1825, at Bethel, Me., and in his youth enjoyed, and improved, the advantages of a liberal education. After graduating in arts at Amherst, in his 21st year, he exercised his talents in literary labor and teaching, chiefly in Philadelphia, where he continued to reside for a number of years.

While engaged in these occupations he became interested in the subject of homœopathy, and for some time studied its peculiarities as a matter of scientific investigation. Finally he became so enthusiastic a convert to its principles that he resolved to enter upon a systematic course of medical study, and to adopt its practice as a profession.

Upon this new vocation he entered with the zeal and ardor characteristic of his nature. He attended the first course of

lectures given in the Homœopathic Medical College of Pennsylvania, and graduated as doctor of medicine from the same institution in 1850.

After an interval of some years in the South, on account of his health, he established himself as a practicing physician at Bangor, in his native State. There he soon acquired a desirable practice—too large, indeed, for his strength, which, with the severity of the climate, soon compelled him to seek a milder temperature. Returning to Philadelphia, he was appointed professor of physiology, the duties of which chair were congenial to his scientific tastes, and afforded a fine field for his talents. To those who knew him it is not necessary to say that he gave his heart to the work, or that his success as a teacher was at once established.

At a later date he was transferred to the chair of pathology in the same college.

His labors in behalf of the cause were not, however, confined to the academy. He established the *Hahnemannian Monthly*, of Philadelphia, and, in conjunction with Dr. Lippe, conducted that able exponent of homœopathy until his gradually failing health obliged him to retire from its management.

But while seeking health and recreation by rest from the exacting labors of practice and teaching, he was by no means idle. He was ever busy either in study or writing, and during the intervals of exemption from more formal duties contributed many valuable and interesting papers to various societies and different medical and other periodicals. The *Transactions* of this Institute are enriched by some important papers from his pen, which reveal at once the learning and genius of their author and the interest he felt in the Society itself.

Having partially recovered his health, Dr. Frost once more essayed to engage in the active exercise of his profession. With this intention he settled in Bethlehem, Pa., and afterwards in Danville, Pa. Although he speedily drew to himself a large circle of considerate and liberal patrons he was unable, from physical weakness, to sustain, for long at a time, the work that he vainly sought to perform.

And so, with intellect undimmed, and devotion unshaken, his

mortal frame gave way early in the present year; but his memory will be long held in admiring and affectionate esteem by his surviving associates.

His membership in the Institute dates from 1865.

JAMES C. NEILSON, M.D.

This gentleman was a native of Scotland, where he was born, in 1819; but, at an early age, was brought to Boston, Mass., by his parents. He received a liberal education, and at the age of nineteen became a student of President Flagg, the eminent dentist and homœopathist. Under tutelage so attractive, intelligent, and comprehensive, the young Neilson could not fail to develop into a skilful and enthusiastic practitioner; and he graduated from Harvard University in 1847. He subsequently commenced practice (in partnership with Dr. Milton Fuller) at Medford, but soon after settled in Charlestown, where he continued in the active exercise of his profession until his death, in November, 1874. In addition to the duties devolving on him, in connection with his extensive private practice, he filled the position of Secretary (and afterwards Treasurer) to the Massachusetts Homœopathic Medical Society. He was also a member of the American Institute of Homœopathy, and his literary contributions to the *Transactions* of these institutions, as well as to the several class journals, medical and scientific, form by no means the least important portion of his valuable services to the profession and the public.

CHARLES FREDERICK FISH, M.D.

Dr. Fish was born in Halifax, Vt., October 27th, 1821. He was a son of the Rev. Samuel Fish, for some sixty years a preacher in the above place. After pursuing his professional studies at Williamstown and Philadelphia, he began the practice of medicine as a homœopathic physician, in Newark, N. J., and very soon had an extensive business, under the weight of which his health failed. After a short residence in Wisconsin, whither he retired for rest and recuperation, he returned to his field of labor, but only to become again disabled. A third time,

after recruiting at Cornwall, on the Hudson, he responded to the calls of his patrons to a limited extent, but was soon obliged to desist even from that, as he became permanently an invalid. For a year and a half he was confined to his room and his bed, where he exhibited in an eminent degree the virtues of a Christian character which he adorned in his active business life. He died, February 23d, 1875, and will be long remembered in Newark and other places as the kind and skilful physician and true man.

He joined the Institute in 1867.

ELIJAH H. DRAKE, M.D.

The history of this estimable member of our Association exemplifies, in a remarkable degree, the success that follows earnest and honorable warfare in life's battle with adverse and discouraging circumstances.

He was born in Wayne County, N. Y., in November, 1821, and was one of fourteen children. When fourteen years old he was removed to Michigan, where he learned the trade of a mason. This occupation not satisfying his aspirations, he engaged all his spare time in the study of medical literature. After some years' labor, in which he worked at his trade in summer, taught school in winter, and continued his studies in his leisure hours, taking time from needed sleep and recreation to devote to the great purpose of his life, at length he returned to New York, and entered formally the office of Dr. Case, of Howard, near Bath, in that State, as a student.

In the interval before his graduation he obtained a license to practice, and entered into partnership with his preceptor. During the following nine years he made several removals, but without neglecting his profession. At the end of that time he settled in Chicago, taking his degree from the Rush Medical College of that city. But in the meanwhile the principles of homœopathy had been more or less frequently brought to his notice; and being brought into intimate relations with Dr. John Ellis and Dr. Thayer, of Battle Creek, who subsequently became his partners, he carefully investigated the claims of that system, and finally adopted it thoroughly in his practice. The

first cases in which he practically tested the efficacy of homœopathic remedies were some severe cases of croup; and the success that attended his cautious experiments induced him to adopt a similar treatment in other throat affections, in the cure of which he seems to have been remarkably successful.

The results of further observations of a like character decided his future course, and he bade farewell to the practice and the views in which he had been educated, and became a diligent student of the resources of the new method.

He died "in harness," November 16th, 1874, at Ypsilanti, Mich., on the fifty-third anniversary of his birth. He had been called thither from Detroit, where he had resided since 1853, for consultation, and having returned to the depot to take the return train, he was standing upon the side-track, not anticipating the switching of the train, and was struck by the rapidly approaching engine and instantly killed. Thus death had not even the power to cause him a moment's pain; God gave him a sweet surprise by letting him into the gate before he was aware.

Dr. Drake has been described as a typical family physician, who enjoyed in a marked degree, from his numerous patronage, the love and confidence which belong to such a relation. He was firm in the maintenance of the homœopathic law, and a careful and discriminating practitioner. He was a member of the Institute since 1867.

Our departed colleague was an earnest disciple of the theological system of Swedenborg, and took a warm interest in the propagation of the doctrines of the "New Church." At his funeral the Rev. L. P. Mercer preached an eloquent and instructive sermon, which was also an impressive tribute to the memory of this excellent member of our fraternity.

NELSON D. BEEBE, M.D.

Dr. Nelson Dudley Beebe was born July 26th, 1832, at Adrian, Michigan. His father, Dr. Dudley Beebe, was a practicing physician, a native of Winhall in Bennington, Vt., and having been graduated at Castleton Medical College, at Castleton, Vt., August 8th, 1830, he immediately emigrated to Michigan, and settled in Adrian, where he died of small-pox in 1832, some

two or three months before the birth of Dr. N. D. Beebe, the subject of this sketch. His widow being left almost entirely without means soon returned with her infant son to Vermont, and settled in Shoreham, in Addison County, where for thirty-five years she resided, and where Dr. Beebe received his early education, and formed those habits of industry and self-reliance, which in his after-life so eminently characterized him.

Previous to his medical studies, his education was obtained under the instruction of his mother, a woman of much more than ordinary ability and acquirements, in attendance upon the common school of his district, and at Newton Academy, an institution in Shoreham village, some three and a half miles from Mrs. Beebe's residence, to which he was accustomed during a portion of the year to go on foot in the morning and return at night. At the age of 17 years he commenced teaching district school during the winter season to procure means to continue his studies and eke out the scanty income of his mother. He continued this teaching, with the then usual accompaniment of "boarding round," for some eight years, or until his graduation from the medical college. In 1853 he commenced the study of medicine; first by himself in the few medical books left by his father, and soon after under the instruction of a Dr. Page, the practicing physician of Shoreham. As a student, whether entirely by himself or under the instruction of others, he was faithful, industrious, and self-reliant. In 1855 and 1856, he attended two courses of lectures at Castleton Medical College, where his father had graduated, and in 1857 he completed his medical course by attending a course of lectures at the medical department of the University of Vermont, at Burlington, where he graduated August 9th, 1857. During the fall of that year he went to Freeport, Illinois, where he soon married Miss Julia E. Goo, who still survives him.

He then adopted the homœopathic system of the practice of medicine, and settled in Warren, Jo Daviess County, Ill., where he resided and continued in active practice until August, 1870, when, on account of his health and hardships of country practice, with its long rides, he returned to Freeport, Ill., and again established himself in practice in company with the late Dr. N.

F. Prentice, where he continued until his death, which occurred December 22d, 1872, after a severe illness of two weeks, leaving a wife and many warm friends to mourn his loss.

He became a member of the Institute in 1871.

NATHAN F. PRENTICE, M.D.

The subject of this notice died at Freeport, Ill., April 19th, 1873, aged 48 years. He was a native of New York State, and was born in Skaneateles, October 12th, 1825.

In 1845 he commenced the study of medicine under the direction of the late Dr. Hilem Bennett, then of Moravia, N. Y. He attended medical lectures at Castleton, Vt., and in the city of New York, where he took his degree in 1847.

After practicing for some time associated with his preceptor, who had in the meanwhile removed to Rochester, N. Y., Dr. Prentice joined the westward tide of travel, and sought and found a field for practice in Rockton, Ill. In 1852 he removed to Freeport, in the adjoining county, where he continued his professional labors with abundant success until his death. He received the compliment of a diploma from the St. Louis Homœopathic Medical College in 1865; in 1867 he spent the winter in New York City and attended a full course of lectures and clinical instruction in surgery. He had adopted the principles of homœopathy from his accomplished preceptor before his graduation, and consistently followed them in his treatment. Dr. Prentice became a member of the Institute in 1870.

Dr. Prentice was a man of kindliest feelings, though usually calm and grave in deportment; cool and self-possessed in the presence of sickness and danger, skilful in his art and clear in his judgment he has left an honorable record, which will long be preserved in the grateful memory of the people among whom he faithfully labored.

HENRY WATTERS, M.D.

Dr. Watters was one of our youngest associates. He was born at Melbourne, Quebec, June 17th, 1848; graduated in medicine at the New York Homœopathic Medical College in March, 1873; became a member of the Institute in June, 1874,

and died November 6th of the same year. He was a gentleman of excellent education, and thoroughly trained in the science and literature of the profession of which he promised to become a distinguished ornament. Immediately after his graduation he commenced practice in Stockton, Me., but within a few months removed to Mechanic's Falls, where he succeeded to the large practice of Dr. Ayer, then lately deceased. This increased responsibility involved greatly increased labor, but his zeal and conscientious earnestness seem to have been equal to the demand.

In the fall of 1874, having been much exhausted by attendance upon a number of cases of "putrid fever," in addition to his other duties, he felt obliged to take a short vacation. On his journey to his father's home in his native town, he was seized with a chill and other symptoms of the same malignant disease. On his arrival he took to his bed, and in less than a week succumbed to the great enemy. An interesting memorial of him, prepared by Leila H. Waterhouse, has furnished the principal materials of this notice.

XLVII.

REPORT

OF THE

COMMITTEE OF ARRANGEMENTS OF THE WORLD'S HOMŒOPATHIC CONVENTION,

TO BE HELD IN PHILADELPHIA, 1876.

TO THE AMERICAN INSTITUTE OF HOMŒOPATHY:

In pursuance of authority and instructions given them in 1874 the Committee of Arrangements have, through their officers, opened correspondence with national homœopathic medical societies, or with distinguished homœopathic physicians of every country in the world in which homœopathy is known to them to be represented, inviting co-operation in the Convention by the appointment of delegates, and by the presentation of historical and statistical reports and of scientific papers.

From many foreign societies and physicians they have received assurances of hearty approval and co-operation, and information that the reports and papers requested are in course of preparation. These facts are more particularly set forth in a circular address to the members of the Institute, by the Chairman and Secretary, under date of May 15th, 1875.

The officers of the committee have also corresponded with the members representing the different States of our own country, and they have assurances from almost all that the work of preparing the historical and statistical reports on homœopathy in the respective States is in progress. Should those who have not

yet been heard from fail to respond before midsummer, the chairman of the committee will exercise the power vested in him in 1874, and appoint in their stead others who will do the desired work.

The final appointment of essayists and debaters will be made within a few weeks, so soon as letters now expected from abroad shall have informed the committee *how much* and *what* we may expect from our foreign colleagues.

The following plan of operations, in so far as a detailed plan can be formed at present, is recommended by the Committee of Arrangements.

By resolution of the Institute in 1874 the committee understand that the Institute will meet, as the World's Homœopathic Convention, in Philadelphia, in 1876; that the officers of the Institute (viz., President, Vice-President, Secretary, Treasurer, and Board of Censors) elected in 1875 will be the officers of the World's Convention — it being understood, of course, that the Convention may at its pleasure elect to temporary honorary offices such distinguished foreign physicians present as they may desire to honor; that the bureaus and committees appointed or elected in 1875 shall not report until 1877; but that instead of the reports of bureaus and committees the World's Convention shall receive and discuss historical and statistical reports and scientific papers from our own and foreign countries.

It will be necessary, on some day during the session of the World's Convention, to hold a brief executive session of the American Institute of Homœopathy, simply for the election of officers for the year 1877, and for receiving and acting upon the reports of the Publication Committee, the Treasurer, and the Board of Censors, and for the admission of new members.

With this exception the sessions of the World's Convention will be devoted entirely to the reading and discussion of historical reports and scientific papers.

The Institute has already provided for the appointment of essayists at home and abroad. The committee propose that scientific papers received from foreign countries shall be translated and immediately printed, and copies furnished to phy-

sicians who may be expected to discuss them, in order that opportunity and time may be afforded for abundant preparation.

That this may be done, it will be necessary that the Treasurer receive funds for the expenses of the Convention as early as January 1st, 1876.

The committee propose that the expenditures for the Convention be strictly limited to the printing of the papers and Transactions, the cost of a hall, and the incidental expenses of a meeting of scientific men for the discussion of scientific subjects.

As a means of raising the necessary funds the committee propose:

1st. That members be requested to pay their dues, as provided by the By-Laws, before *January* 1st, instead of waiting until *June* 1st, 1876, or later.

2d. That the Committee of Arrangements (in which each State is represented) be constituted, with the Treasurer of the Institute, a Finance Committee; the State representatives to secure, in their respective States, from members of the profession, or others, irrespective of membership of the Institute, such contributions to the funds for the World's Convention expenses as they may be able to obtain, and to transmit them to the Treasurer of the Institute.

The committee have instructed their officers to estimate what sum of money, in addition to the regular income of the Institute, will be necessary; and to apportion it among the States in the ratio of membership of the Institute, and to notify State representatives and members of the Institute of the *per capita* apportionment, and to urge speedy and generous contributions.

By the proposed arrangement every member of the Institute who has paid his dues, as provided by the law, will receive the Transactions of the Convention.

But the material which will be available for these Transactions, constituting, as it will, a historical and statistical report on homœopathy throughout the world, and a representation of homœopathic thought and practice throughout the world, will involve a large and costly publication, which cannot be made unless members of the profession, besides paying their dues as

members of the Institute, contribute to the fund liberally and promptly, according to their ability.

If issued in a complete form the Transactions will, it is believed, constitute a work altogether unique in kind, and of inestimable value to every physician.

The committee recommend that the World's Convention meet in Philadelphia, Monday, June 26th, 1876; and that the duration of the session depend on the business which may come before the Convention.

Respectfully submitted, by order of the Committee of Arrangements.*

CARROLL DUNHAM, M.D.,
Chairman.

June 18th, 1875.

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* The Institute, by a unanimous vote, adopted the following resolution:

"*Resolved*, That the Institute receive and adopt the Report of the Committee of Arrangements of the World's Homœopathic Convention; that it renew the authority and instructions given to the Committee of Arrangements in 1874; and that it authorize and direct the committee to proceed to execute the measures proposed by it as stated in the report of the committee just submitted."—GEN. SEC.

XLVIII.

REPORT

OF THE

COMMITTEE ON HOMŒOPATHIC COLLEGES.

THE Committee on Colleges respectfully submit the following report:

During the past year nine legally chartered medical schools in which homœopathy is recognized as the corner-stone of therapeutics, have been in successful operation. The name and date of the origin of these schools are as follows:

1. Hahnemann Medical College of Philadelphia, formerly known as the Homœopathic Medical College of Pennsylvania, which was chartered in 1848.

2. The Homœopathic Hospital College, Cleveland, formerly known as the Western College of Homœopathic Medicine, and subsequently as the Western Homœopathic College, was chartered in 1850.

3. The Hahnemann Medical College of Chicago was chartered in 1855.

4. The New York Homœopathic College was chartered in 1859.

5. The New York College and Hospital for Women was chartered in 1861.

6. The Missouri Homœopathic Medical College at St. Louis was chartered in 1859.

7. Pulte Medical College of Cincinnati was organized in 1871.

8. The Medical Department of Boston University was organized in 1871.

9. The Medical Department of the Michigan University at Ann Arbor was organized in 1875.

The last-named school supersedes the Homœopathic Medical College of Detroit, which gave its last and final course in the fall and winter of 1874 and 1875.

Your committee have reason to believe that these institutions have been well and faithfully conducted by their respective faculties, and that they have been eminently successful in securing facilities for students quite equal if not superior to those of other schools. Already they have acquired an honorable reputation for thoroughness and completeness in their annual courses of instruction. They are generally supplied with first-class teachers for the various departments of medical science, and also with superior advantages for clinical instruction in hospitals, dispensaries and other charitable infirmaries, which compare favorably with, if they do not surpass, those provided by other medical schools, from which homœopathy as a branch of medical science is excluded.

In view of the fact that more than two thousand graduates of these schools, in the United States and Canada, are now competing successfully in practical medicine and surgery with the graduates of the old school, and also in the various specialties extant in the profession, your committee entertain the opinion that homœopathic colleges came into existence as a necessity, a fact which every member of the American Institute of Homœopathy should recognize. They have the same legal status. They embrace in their curriculum of studies all the positive sciences connected with medicine, including homœopathy. They have the best and most modern facilities for didactic, demonstrative and clinical teaching in general, and special surgery, obstetrics and the practice of medicine. Inasmuch, therefore, as it is well known that homœopathic colleges have attained this creditable standing, your committee would respectfully suggest the propriety of this national council exerting its influence in their favor, 1st, by recommending to the homœopathic profession to exercise the greatest care and discrimination that only

young men and women of excellent character and accomplishments should be induced to study medicine; and 2dly, that homœopathic colleges of good character and high standing should be commended to worthy students in preference to allopathic, which may offer inducements either on account of high-sounding fame or cheap tuition.

The graded course of instruction, extending over three full collegiate sessions, is earnestly advised by several of our colleges, and the plan is being in some instances carried out; while, at the same time, a division of studies upon the two-course plan has been made for such as are unable to attend the three full courses advised. In this arrangement all the branches are taught in each annual course, but in such order as to avoid the former unsatisfactory method of requiring students to listen to the same lectures two years in succession. Each year, as in all other collegiate institutions, the student leaves behind what he has thoroughly learned, to enter upon the study of those branches not yet mastered. The *junior, middle,* and *senior courses* are arranged with sufficient distinctness to admit of students entering either grade that their previous acquirements may have fitted them for. In order to secure the privilege of entering the *junior course,* your committee are of the opinion that each student should furnish satisfactory evidence that he has mastered a preparatory course of studies similar to that which is generally required in other collegiate institutions. It must be confessed that the neglect of requiring at least a certain standard of preliminary attainments to entitle one to enter upon the college courses, has left open the doors for the entrance of some defective in orthography and the common branches of an English education, and the sooner this blot upon the respectability of the profession is taken in hand by the proper guardians of professional honor and the interests of the public the better, and your committee entertains the opinion that an expression from your honorable body favorable to this sentiment may result in the adoption by our colleges of a uniform standard of preliminary education preparatory to entering upon their courses of instruction. The greater the care exercised by the faculties of our colleges in guarding the character and in promoting the honor-

able standing of their respective classes, the more patronage will they secure, and the less likely will it be that their students will wander away and become unwelcome classmates in allopathic institutions.

Instances are cited, as will appear from letters accompanying this report, where students with homœopathic proclivities in allopathic colleges have been denied the right of becoming candidates for graduation, and in other instances public announcement has been made that students of homœopathy would be excluded.

Your committee would offer no criticism on the course pursued by allopathic colleges, as they have an unquestionable right to manage their own affairs; but, as an offset to their apparently illiberal restrictions, they are proud to claim a liberality on the part of the homœopathic colleges in admitting to their courses of instruction advanced students from allopathic schools, and even their graduates, who may wish to gain a thorough knowledge of the principles and practice of homœopathy, without questioning their right of exercising their own private judgment concerning the quality and utility of the instructions they receive.

In conclusion, your committee would commend the homœopathic colleges on account of their liberal and catholic spirit, and the wise provision they have made for clinical advantages, as well as for thorough and complete instruction in all the branches of medical science. All of which is respectfully submitted.

On behalf of the committee,

A. E. SMALL, M.D.,
Chairman.

XLIX.

REPORT

OF THE

COMMITTEE ON FOREIGN CORRESPONDENCE.

By Carroll Dunham, M.D., Irvington, N.Y.

I.

The Committee of Foreign Correspondence have received a communication, addressed to the Institute, from Dr. Tommaso Cigliano, of Naples, a corresponding member of the Institute. Subjoined is a translation of it:

To the American Institute of Homœopathy.

First of all I thank all my colleagues who have honored me by electing me their correspondent. Such a circumstance places me in the agreeable position of communicating my scientific notions and observations to the most learned physicians of the world. I will begin by narrating my observations in the treatment of diphtheria during the past few years.

The remedies recommended in our books are: Ars., Lach., Merc., Bell., etc., etc. In true diphtheria all these remedies have shown themselves partially, if not altogether, inefficacious.

The remedy which has inspired the greatest confidence is the Cyanide of mercury, proposed, after experience with it, by Dr. Beck, of Germany. The physicians of some of the southern provinces, to whom, at the outbreak of the disease, I recommended the use of the Cyanide of mercury, have informed me that it has been of the greatest service; so much so that it has acquired the popular name of "*the diphtheria remedy.*"

In my own practice, however, I must confess that I have found it most efficacious in *angina phlegmonosa*, *catarrhalis*, *et diphtheritica*, of a moderate degree of severity, of which affections I have had opportunity to observe a

great many cases during the prevalence of epidemics. But in anginæ with livid patches, with glandular engorgements, with thready pulse, and temperature of 40.50° Centigrade, it has not always been successful in my hands. Of four boys (none previously treated allopathically) two died (one on the ninth, the other on the third day of the disease) and two recovered (one on the twelfth and the other on the twenty-first day of the disease and treatment). In the former death occurred by paralysis of the heart through exhaustion; in the latter the diphtheritic patches became ichorous, affecting the tonsils and exhaling a putrid fetor.

The convalescence of these patients was very slow, occupying a period of forty days, during which we constantly dreaded exhaustion and death. The cases treated by the provincial physicians, who have had the courtesy to inform me of the results of their use of Cyanide of mercury, followed the same course, and the results were not uniformly happy. In spite of these results, having been called to take charge of a lad of six years, named Carlo Formicho, of Naples, I prescribed Cyanide of mercury during the first twenty-four hours of the disease. After three days, during which he used this remedy, the disease still progressed. I then prescribed *Phenic acid*, which I found most suitable to the case, in the first decimal dilution, two drops in four ounces of water, to be taken at intervals in the course of the day.

After the first dose the boy was more depressed (fever exacerbated). The next day (fifth of the disease) he was better; fever less intense, the patches moister and less ashy. Gradually he became, on the eighth day, convalescent, and the recovery was very rapid.

Encouraged by this cure, I advised the same treatment in the case of the sister, who recovered in six days. Two other boys of the same family were protected from the contagion by the same remedy. In a family of my patients, in which father, mother, five children, of different ages and sexes, and, finally, the nurse, were attacked with diphtheria, I advised *Phenic acid*, and the recovery of all was very prompt. In twenty more cases, more or less severe, I have advised the same treatment, and the result has been uniformly happy. My friends, Drs. Rubini and Mucci, to whom I made known my prescriptions, have constantly used *Phenic acid* in these cases with favorable results.

In the convent of the sisters of charity of which I am physician I have cured, from 1871 to 1874, with the same remedy, more than forty cases, more or less severe.

From these experiences of my own, which I have thus detailed, I draw the following practical conclusions, which I am glad to find identical with those of my German colleague, Bähr (Rivista omiopatica di Roma), who has also used *Phenic acid* in diphtheria:

1. That the indications for *Phenic acid* are: fever with a temperature of 40° or 41° Centigrade, with very irregular exacerbations and remissions in the twenty-four hours; pulse thready and frequent (120 to 130), false membranes ashy and blackish, tending to sphacelus, with cadaverous fetor and engorgement of the cervical glands.

2. That the *Phenic acid* reduces the fever four or five-tenths of a degree Centigrade, after it has been taken for a half-hour. This remission lasts for three-quarters of an hour to two hours. If the remission does not take place, then the dose administered is not a suitable one for the case. The dose has been too large when the patient, after the first doses, vomits and suffers pain in the head, worse in the right superciliary region. I have seen these same effects appear, even when the dose was moderate, after using it two days. Aggravations from 9 to 11 P.M., and ameliorations after 11; amelioration from eating.

3. That the diphtheritic patches, after the first and also after the third day of the remedy, either become thinner, being reduced to a film like a white veil, or they become whiter, corrugated, and detached. Generally a diminution of the fever coincides with these local effects.

4. That, if the remedy be administered at the first invasion of the disease, convalescence is not delayed beyond the third day.

5. A profuse sweat on the first night of the treatment foretokens remission of the fever in the morning and convalescence on the third day from the first prescription of the remedy.

6. That, in case of an exacerbation from the remedy, which is indicated by headache and vomiting, we should suspend the remedy and await the exhaustion of its action, which is indicated by the amelioration of the patient.

7. When the fever remits in the morning to 37.8, with regular evening exacerbations, not reaching 40° Centigrade, the patient (even if not yet better as regards the patches in the fauces, and even without the critical sweats) recovers towards the eighth or, at the farthest, the twelfth day of the disease.

8. When the fauces are dry it is necessary to use local applications of simple water with a few drops of *Phenic acid* of the first centesimal dilution. The dilution most extensively used has been the third centesimal, six drops in a glass of water, the whole taken at intervals in the course of twenty-four hours. I have also used the sixth with good results for sensitive persons and children, and have used the sixth in globules as a preventive.

These are my observations and conclusions upon *Phenic acid* in diphtheria. I hope that my American colleagues will be willing to repeat the experiments in order to be able to verify or to rectify my conclusions.

I have also found Phenic acid efficacious in *pulmonitis caseosa suppurativa*. The indications are: Violent cough, sputa full of dregs, pure or mixed with blood; dulness at the apices of the lungs, with humid râles; fever with evening exacerbations; profuse morning sweats, with decided emaciation. The prescription is: fifty drops of the first decimal in a glass of water, to be taken at intervals every day. Amelioration is manifest after fifteen days.

Phenic acid is also, according to my observations, an excellent preservative against diphtheria.

(Signed), TOMMASO CIGLIANO.

NAPLES, March, 1875.

II.

Homœopathy in Mexico.

By Carroll Dunham, M.D., Irvington, N. Y.

In the summer of 1874, appeared in the City of Mexico, No. 1 of a monthly homœopathic journal, *El Faro Homeopatico*, the scientific organ of the "Mexican Homœopathic Medical Society."

This Society, the preliminary organization of which took place December 11th, 1873, was finally organized under authority of law on the tenth of April, 1874, on which occasion the members of the Society and their guests commemorated in a banquet, and with enthusiastic addresses, the birth of Hahnemann.

El Faro Homeopatico has been issued at intervals since the above date, and No. 6 (February, 1875) has just reached us. Among the articles worthy of notice which this journal contains, are: one on Epilepsy by Dr. Carrera; an essay on the Eucalyptus Globulus by Dr. Navarette; on Abscess of the Liver by Dr. Avellano; on Pharmacy by Drs. Davilla and Chavez; on Tuberculosis by Dr. P. Fuentes y Herrera, and a translation of Jousset on General Pathology.

Under the auspices of this Society, a dispensary, open three days in the week, is conducted for the gratuitous treatment of the poor. During 1874, 8947 gratuitous prescriptions were made.

The members of the Society are 15 in number, resident in the City of Mexico.

Sr. Dr. D. Mariano Valdez y Moreles is President, and Sr. Dr. Pablo Fuentes y Herrera is General Secretary of the Society.

These gentlemen, with Drs. Davila, Miranda, and Chavez, are editors of *El Faro Homeopatico*.

L.

REPORT

OF THE

COMMITTEE ON LEGISLATION.

NO STATE MEDICINE AND NO SECTARIAN HEALTH BOARDS.

By J. P. Dake, M.D., Nashville, Tenn.

It has been apparent to every reader of medical literature and to every observer of legislative doings in our country, during the past few years, that a new and vigorous effort is being made, on the part of the American Medical Association, and its offspring, the American Public Health Association, to have a new department of government erected, under their control, the officers of which shall reside at Washington and at the several State capitals, to supervise and regulate the medical and sanitary interests of the country.

At the annual meeting of the American Public Health Association in Philadelphia, in November, 1874, the retiring President, Dr. Smith, in a formal manner, said:

"Those who have carefully observed the progress of events during the past few years must have recognized a new element in our political system, which is destined to become a power of no mean import, in the Public Health Service. In every State the agitation has begun, which can only terminate in the incorporation of this new element of administration into State and municipal governments. Already in no less than seven States has *State Medicine* found an abiding-place, and in the central government; and there can be little doubt that within every State the Union will inaugurate its sanitary branch of this gen-

eral government. We recognize in this new element in the State the same power which, in the Roman commonwealth and empire, gave medicine *imperial rank.*

"Every State ought, under the guidance of competent medical authority, to take charge of all the schools of medicine and surgery within its borders, regulate their courses of study, and confer degrees upon candidates, and thus establish a *standard* of medical qualifications."

In his peroration the President had been tracing the progress of medicine in ancient Rome, showing how it had struggled up through difficulties to imperial greatness and power.

After picturing those halcyon days in Roman history, when political, religious, and medical forces were correlated in the hands of the Cæsars, when the organized medical authorities "were fully empowered to enforce the most thorough medical education and to *suppress all forms of irregular and irresponsible practice,*" he says:

"This review of the state of the medical art during the early periods of Roman history conveys a suggestive and useful lesson. The century which is about to close has been, like the first period of ancient Rome, the *unorganized laity phase* of the medical art in this country."

And at the annual meeting of the American Medical Association in Louisville, last month, Dr. Bowditch, of Boston, read a paper on Public Hygiene, in which he said:

"He thought there should be a department of hygiene created by the government, which should be represented in the Presidential cabinet. This would embrace the oversight of hospitals, insane asylums, forts, camps, barracks, medical storehouses, etc.

"In the event of the establishment of this great enterprise, every State should have a counsellor, and all be present at any meeting.

"Each counsellor should hold office five years, and be re-elected if such should be thought desirable. In addition he suggested that this (American Medical) Association should have the right to select, every five years, four men as counsellors at large for the nation.

"And, finally, the national government should be represented in the council by the Health Secretary, Surgeon-General, and Signal Officer.

"This Health Association, composed of one from the medical organization of each State, would be of national significance."

At the conclusion of Dr. Bowditch's paper the following resolution was adopted:

"*Resolved*, That each year, until otherwise ordered, the President-elect and the Permanent Secretary be directed to appeal, in the name of this Association, to the authorities of each State, where no State Board of Health exists, urging them to establish such boards."

It appears from the Doctor's paper that only "eight States have Medical Boards of Health, while twenty-eight have nothing of the kind." But one State was added to the list during the past year.

It should be plain to every one who considers the import of the language used by Dr. Smith in the one Association, and of that used by Dr. Bowditch in the other, that a regular scheme is on foot for the seizure of governmental power, and its employment for the benefit and aggrandizement of a particular school and class of medical men. Were it possible for us to doubt the reality and the purpose of such a scheme, a little consideration of the enactments already in force in the several States mentioned as having Medical Boards, and a look at the standing resolution just passed by the American Medical Association, must be entirely convincing.

In some States, Boards of Medical Examiners have been appointed, composed only of graduates from medical schools recognized by the American Medical Association; and such boards are allowed to grant licenses only to such practitioners as exhibit to them diplomas from medical schools recognized by the same Association, or to such as may be able to pass an examination satisfactory to the examiners.

This is the pure unmodified result of the original scheme, which has been elsewhere characterized as "STATE MEDICINE AND A MEDICAL INQUISITION."

In some States the boards ordained by legislative enactments,

through the sturdy opposition of what have been termed outsiders or "irregulars" in medicine, have been modified, both as to their make-up and scope of inquiry.

And some States, where the enlightenment of the people would not tolerate an inquisition belonging more to the dark ages than to this, the boards appointed have been called Boards of Health, brought into existence ostensibly to meet the sanitary wants of the people, but really to carry out the selfish and proscriptive designs of the American Medical Association.

Early in the session of the legislature of Tennessee, last January, two bills were introduced in the Senate for the creation of Boards of Medical Examiners and two in the House for the authorization of Boards of Health, all to be constituted out of orthodox material, and to be endowed with powers to regulate the practice of medicine and of sanitary measures throughout the commonwealth.

The number of homœopathic physicians, and of such others in the State as might be considered adverse, being comparatively small, the authors of the bills did not hesitate to ask for all that their aspirations could lead them to desire. Very soon after the introduction of the measures, and while the lobby influence of the "regulars" was actively pushing them on, there appeared in one of the daily papers at the capital a short article characterizing the scheme as it deserved, and calling upon the legislators and the people to wake up and defend their liberties.

Soon after it another article, enforcing the same views, appeared in the other leading daily, and immediately thereafter a pamphlet, discussing the bills and arguing against the right of the State to erect an "established medicine," and the futility of a medical censorship, was issued, and a copy sent to every member of the legislature and to every newspaper in the State.

By a delicate mode of inquiry in and about the capital, it was soon ascertained that the tide of legislative as well as public sentiment was well turned against State medicine.

The Senate bills, on third reading, were killed, and consigned to the waste-basket by a vote of twenty-two against and but three in favor of them, and the House bills were effectually smothered in the Judiciary Committee.

It is worth mention that, in all that was published in opposition to the measures, homœopathy and its claims to recognition and protection never once appeared, but every fact and argument urged was such as might come from any unbiased lover of justice and freedom and any opponent of usurpation and tyranny, regardless of his individual preferences and practices.

It is worth mention also, that after the appearance of the articles and the pamphlet mentioned, the venerable President of the American Medical Association, residing in Nashville, in an editorial in his own journal, announced his opposition to all such efforts at medical legislation. Although a very fairminded and independent man, usually opposed to all arrogant assumptions, it is doubtful if he would have declared himself so plainly at the time, in the face of nearly all his medical brethren, had he not felt, as an intelligent man, the pressure of public opinion.

Had the opposition been made in the name and interest of homœopathy, or upon any other basis than that of general freedom and right, public sentiment would have been unmoved, and Dr. Bowling would have remained silent, and the result in the legislature of Tennessee might have been very different. As it was, the victory over the only bills that came to a third reading was effected and signalized by all the votes in the Senate, except three, which three were cast by old-school doctors misrepresenting their constituents.

But enough of history. Let us consider briefly the line of action that we should take as citizens and as practitioners of homœopathy, and especially as members of this national society, in reference to the scheme of which we have been speaking.

1. As citizens, it is plainly our duty to oppose, by every possible means, the erection of any standard of orthodoxy in matters regarding which each individual has a right to form his own opinion and to exercise his own choice.

As in religion, so in medicine; during all past time men have differed, and there is every reason to believe that they will continue to differ during all coming time.

Till all men come to look upon things from the same standpoint and in exactly the same light; till, concerning every cause and every effect in the universe of mind and matter, men come

to say I KNOW instead of *I believe*, will there be different views and various beliefs, however much societies and even governments may erect standards and strive to enforce uniformity.

The assumption that some people have the right to form opinions for others, and that each is not responsible for himself alone, has filled the world with persecution and cruelty, and hung as a dead weight upon human progress.

A State medicine has no more place in this Republic than has a State religion.

If there is to be a Minister of Medicine in the Presidential Cabinet, why not also a Minister of Religion? If there is to be a National Medical Council as a branch of the government, why not also a National Religious Council.

If the people need health of body, so likewise do they need health of soul, and if the government is competent to furnish the one, why not the other also?

2. Again, as citizens, it is our duty to oppose the imposition of any useless burdens by the State upon any class of its people in the prosecution of their business affairs.

The enactment of laws subjecting the practitioners of medicine to any restraints, any examinations or formulæ, in themselves not beneficial to the *people*, are wrong and oppressive.

The State cannot be justified in the requirement that every practitioner of the healing art shall be a graduate from a school of medicine recognized by any certain number or sect or society of medical men. The knowledge gained at other schools not so recognized may be just as good, if not better, than that obtainable in them.

Nor can the State be justified in the requirement that every such practitioner shall possess the diploma of a chartered medical college, as a sufficient medical education may be obtained at institutions not chartered, and even from sources outside of any medical school or faculty whatever.

It is not impossible, nor even very difficult, for a student of good natural abilities, and preliminary mental training, to take up the text-books of medicine, and under private tuition, or even by himself, to pursue the study of medicine in all its branches.

We do not underrate at all the utility of medical colleges,

and the advantages they may offer to the student, when we say that they are not absolutely necessary to the attainment of a good and even a complete medical education.

As well might it be said that a knowledge of the classics or mathematics, or the natural sciences, pure or in their varied applications, could be obtained only in schools recognized by certain parties or chartered by certain authorities, and organized and conducted after certain models.

There can be no more necessity for the education of physicians in recognized or chartered schools of medicine, than there is for the education of clergymen in similar schools of theology, or of lawyers in such schools of law.

It is an assumption not justified by facts, that the diploma of any school is an unmistakable or a necessary voucher for professional abilities in the physician, the lawyer, or the clergyman.

We need not stop to prove this assertion, except by a reference to the testimony of common observation and experience on every side.

The diploma says its possessor was a good student, and that he answered the questions put to him during the usual examinations satisfactorily.

It cannot say to the community where he essays to practice that he has good faculties of observation, good powers of reasoning, honesty of purpose and energy of character, but simply that when a youth he was studious, bore a good character, and possessed a retentive and ready memory stored with a required amount of medical facts and opinions as then held and taught by a certain medical faculty.

While the diploma in the beginning might thus far have been a satisfactory certificate of his acquirements, it must, as an index to his abilities, like the morning star fading before the rising sun, become of less and less value as his day of unfolding and of practical life advances.

For the guidance of the people among whom he may be located in after years, the results of his labor, the displays of his practical skill, must stand far enough above and beyond all college diplomas. The judgment passed upon him then by those who have watched and scrutinized him, as the guardian of

their most cherished earthly interests, and as their most familiar counsellor and friend in hours of the greatest trial and danger, must be of more worth to them and should be far more satisfactory to the State, which would presume to discriminate for her citizens between the capable and the incapable among medical men, than any diploma he might be able to produce. The rule of Scripture, requiring every tree to be judged by its *fruits*, and not by its *buds* or its *blossoms*, is safest for the State as well as the people in forming a judgment of men for practical purposes.

The position taken by this learned body in Art. IV, Sec. 2, of its Code of Medical Ethics, is the proper one, that, "A practitioner, whatever his *credentials* may be, who enjoys a good moral and professional standing in the community, should not be excluded from fellowship, nor his aid rejected when it is desired by the patient in consultation."

This is a plain recognition of the right and ability of a community to pass judgment upon its medical practitioners, and it is likewise a placing of such judgment before all paper credentials of whatever kind or origin.

The three cardinal requirements of this Institute, as given in its Code, are—

"1. A truly fraternal good-will and fellowship among *all* who devote themselves to the care of the sick.

"2. A thorough and complete knowledge, *however obtained*, of all the direct and collateral branches of medical science, as it exists in all sects and schools of medicine, as the essential qualification of the physician.

"3. Perfect freedom of opinion and practice as the unquestionable prerogative of the practitioner, who is sole judge of what is the best mode of treatment in each case of sickness intrusted to his care."

And the State cannot be justified in the requirement that every practitioner of medicine, in any of its branches, if not possessed of a diploma, shall undergo an examination by an authoritative board of censors, who at pleasure may grant or withhold licenses to practice.

So far as medical creeds and schools are concerned, such board would be a medical inquisition.

And so far as its certificates could go, they would be more indicative of the medical tenets and caprices of the reigning board than of the qualifications of those examined.

As a protecting power it would do more for medical orthodoxy than for the people, and more against medical heterodoxy than against medical ignorance and imposition.

Look at it from any standpoint and in any light we will, there are no benefits accruing either to medical science or to the people, to compensate for the interference with individual rights and privileges inaugurated by State boards of medical examiners.

It matters not if, in a spirit of seeming liberality, the State, as in Michigan or New York, should propose to have the leading sects in medicine represented in its Board of Censors, the failure, as to any good results, any protection of the dear people from quackery, would be the same.

The right to differ in medical opinions and practice, implies the right to form medical sects and systems without number. An orthodox eclecticism may be as unjust and oppressive as an orthodox allopathy; and an orthodox homœopathy, under State authority, might be as exacting and proscriptive as either of the others, and together they might join hands to keep down all views and practices dissenting from their own.

Nor are the objections to such a board obviated by a provision that no examinations shall be made as to *Theory and Practice, and Materia Medica.*

While thus ostensibly stripped of all sectarian character, discriminations would still be made on sectarian grounds, and if they were not, an examination as to the rudiments of medicine of men long in the field of practice, would prove little as to their skill and trustworthiness among the people.

In conclusion, as regards State medicine with its authoritative examining and licensing boards, since it must be useless for the protection of the people against medical ignorance and imposition, and since it could only prove a partisan and political engine, advantageous to a few and oppressive to many, it should have

our opposition, earnest, united, and prompt, wherever it appears, under whatever guise or name, and by whomsoever urged.

We are asked if the State then can rightfully do nothing for the protection of her citizens against uneducated and incompetent practitioners of the healing art?

We answer, yes; but not in the ways proposed.

The State may rightfully enact laws requiring every one practicing medicine in any of its branches within her borders, to enter upon a book, kept in the office of the county clerk, a statement under oath of—

1. His or her full name and titles.

2. His or her place and manner of education in general, and in medicine in particular.

3. If a graduate, name and location of the institution granting the diploma, and date of the same.

4. If located in practice elsewhere previously the name of the place and length of time so in practice.

And it may be provided that no one, under suitable penalty, shall practice in any county within the State one week without such registration; and that upon proof made by any citizen that false statements have been entered upon the register, the author of such false statements shall be prosecuted for perjury under the laws made and provided therefor.

Thus far the State may safely go in regulating the practice of medicine.

She can enlighten and so protect her citizens; but she cannot arbitrarily interfere with their right of choice among physicians.

Sanitary Regulations.

The attention paid by the followers of Hahnemann to sanitary measures, public as well as private, has been a marked feature of homœopathy from its beginning; while those practitioners of medicine who relied upon massive doses of drugs and other heroic means to drive out diseases, like so many Cretan bulls or Erymanthian boars, thought little and said little about the regulation of diet or habits, or the need of cleanliness, or pure air or proper exercise.

As stated by a certain allopathic professor to his class not long

ago, "It was not considered the business of a physician to tell people how not to get sick, but rather to cure them when sick, and to get his money for it."

But lately, from a widening and deepening lack of confidence in heroic measures among the more intelligent of the people, and from growing doubts in the same direction among practitioners, our allopathic brethren have come to have a new and wonderful interest in sanitary science.

Not long ago the distinguished surgeon of the South, Dr. Paul F. Eve, in an introductory lecture, said to his class, "The uncertainty of the action of medicines has led us to try more to avoid the necessity of resorting to them."

This new departure, embracing men of honest convictions and men who have no higher motive than, by the specious plea of sanitary science and the demands of public health, to bring legislative enactments to bear against medical heterodoxy, and to obtain fat political places for themselves,—this departure, good in itself, as to what properly directed it might accomplish, we must look upon now with grave suspicion.

When, as in New York last year, the American Public Health Association, by its executive committee, threw out the applications for membership of Dr. Verdi, because a homœopath, and Dr. Bliss, because he would associate with a homœopath, the spirit and aims of the whole movement were plainly revealed. It needed no microscope nor spectroscope nor chemical analysis to detect the partisan and sordid character of the whole movement, and to satisfy every homœopathic physician and every fairminded man in the country that no great good, but much harm, was likely to result from its operations.

We then believed, and have since been more and more confirmed in the belief, that as homœopaths and as citizens it must be our duty to oppose the efforts of that Association in Congress and in every legislature where they may be asking for the creation of boards of health.

With their ultimate evil purposes so clearly revealed, it has been surprising that any in our own ranks could be so blind, so overawed by a fear of being taunted with no interest or intelli-

gence in sanitary affairs, as to favor the passage of bills designed to carry out such nefarious schemes.

It is the duty of every one of us, by every possible means, to fight, year after year, against the enactment of laws erecting authoritative boards of health, till fully assured that such boards are to be composed of competent men, *regardless of medical creeds and parties.*

We are asked what shall meantime be done for the protection of the public health?

We answer, let voluntary organizations go on with the development and application of sanitary science. They can gather and publish statistics and facts bearing upon the subject, and enlighten the people, without having dictatorial and proscriptive powers.

When the two bills for Boards of Health in Tennessee were pending, last winter, I called upon the chairman of the Judiciary Committee, to which they had been referred, having in my pocket the draft of a bill for the incorporation of a voluntary State Board of Health, proposing to do, at its own expense, all that was needed, or that could be done by any authoritative board, for the protection of the dear people of the commonwealth. It was my purpose, in case the committee seemed inclined to favor the bills in hand, to ask the chairman to place before the House my bill of incorporation, that I could afterward argue in favor of the inexpensive voluntary board as against a board to be authoritative and run at public expense. But when informed by him that the committee's report would be entirely adverse to the bills before them, I considered we might do a little longer without a charter, and so let the application slumber in my pocket.

The truth is, the good results of work done by Boards of Health in cities and districts and States where they have been created and sustained at large public expense, have been so inconsiderable, so impalpable, as to the prevention of contagious or epidemic diseases or the mitigation of any kind of sickness or danger, that wise and economical people have come seriously to doubt if they are of any great practical utility. Where any important good has been realized, it has been due generally to

some amateur sanitarians of great benevolence and energy, who would do quite as much at the solicitation of a mayor or a governor, without fee or reward, as when made members of an expensive board of health.

But, admitting all that can be urged in favor of such boards, it is plainly *our* duty to prevent their creation, when asked for by, or placed under the control of the American Medical Association, or any other sectarian and illiberal body.

A judicious display of arguments from the standpoint of the people against the creation of new political offices, the imposition of additional tax-burdens, and the aggrandizement of certain medical bodies and medical men, to the injury of others, will be sufficient to defeat the projects of the American Public Health Association in Congress and in every legislature in the land.

LI.

CONSTITUTION AND BY-LAWS.

(ADOPTED JUNE 10TH, 1874.)

CONSTITUTION.

ARTICLE I.—NAME AND OBJECT.

This Association shall be styled the AMERICAN INSTITUTE OF HOMŒOPATHY, and its object the improvement of homœopathic therapeutics and all other departments of medical science.

ARTICLE II.—MEMBERS.

The Institute shall be composed of those physicians who are already members, and of such others as may be hereafter chosen in conformity with the By-laws.

ARTICLE III.—OFFICERS.

The officers of the Institute shall be a President, Vice-President, a General Secretary, a Provisional Secretary, and a Treasurer, with such other officers as shall be designated by the By-laws, to be chosen at such time, in such manner, for such a period, and with such duties, as these By-laws shall ordain.

ARTICLE IV.—SEAL.

The Institute shall have and use one common seal, with a suitable device and inscription.

ARTICLE V.—AMENDMENTS.

This Constitution may be altered or amended by a vote of two-thirds of all the members present at the regular annual meeting, provided that notice of such alteration or amendment shall have been given in writing at a previous annual meeting of the Institute.

BY-LAWS.

ARTICLE I.—MEETINGS.

The Institute shall hold at least one session in each year, at such time and place as may be determined upon from time to time.

ARTICLE II.—OFFICERS.

SECTION 1. The officers shall be elected by ballot at each annual session of the Institute, and shall enter upon their respective duties the first day of January following.

SECTION 2. The officers of the Institute, viz., the President, Vice-President, General Secretary, Provisional Secretary, and Treasurer, shall constitute an Executive Committee, which shall arrange the business of the meetings, attend to matters of business not otherwise specially provided for, and perform such other duties as may by vote of the Institute devolve upon it.

ARTICLE III.—DUTIES OF OFFICERS.

SECTION 1. The President shall preside at the meetings of the Institute and perform the duties usually pertaining to his office, together with such others as may by vote of the Institute devolve upon him. He shall sign all certificates of membership. He shall deliver an address at the opening of each session on the progress of Homœopathy during the year past, and make such suggestions as he may deem necessary for the Institute to take action on during the session.

SECTION 2. The Vice-President shall perform the duties of the President in his absence or disability.

SECTION 3. The General Secretary shall keep a record of the proceedings of the meetings, conduct the correspondence of the Institute, issue notices of meetings, notify candidates of their election, sign certificates of membership, and perform such other duties as the Institute may direct.

SECTION 4. The Provisional Secretary shall assist the General Secretary, and in his absence perform his duties.

SECTION 5. The Treasurer shall receive all money belonging to the Institute, and make all disbursements under the recommendation of the Executive Committee. He shall furnish at each annual meeting a written report of the condition of the finances.

ARTICLE IV.—CENSORS.

At each annual session the Institute shall elect, by ballot, a

board of five censors (three of whom shall constitute a quorum), who shall receive and examine the credentials of candidates for membership, and report to the Institute for election such as may be found properly qualified. The censors shall enter upon their duties on the first day of January following their election.

ARTICLE V.—MEMBERSHIP.

SECTION 1. Candidates for membership shall present to the Board of Censors a certificate of three members of the Institute that the applicant has pursued a regular course of medical studies, according to the requirements of the existing institutions of this country, and sustains a good moral character and professional standing. Such certificate shall state when and where the applicant obtained a diploma. If found qualified the candidate may be elected a member. No person shall be considered a member, however, before paying an admission fee of two dollars, and the annual dues, which shall entitle him to a certificate of membership.

SECTION 2. Any physician, properly accredited as a delegate, shall be admitted during the session of the Institute to all the privileges of members, except voting and eligibility to office, on the following basis:

First. From every association composed of more than fifty members from different States, two delegates, with an additional delegate for every twenty members.

Second. From every State Society, two delegates, with an additional delegate for every twenty members.

Third. From every county or local society, one delegate.

Fourth. From every college, hospital, asylum for the insane, or dispensary, actually established, one delegate.

Fifth. From every medical journal published one delegate.

Such delegates shall be elected for the term of one year.

SECTION 3. Any foreign physician may be elected a Corresponding Member of the Institute at any annual meeting, and shall have all the privileges of members except voting and eligibility to office.

SECTION 4. The Institute may, at any annual meeting, elect as Honorary Members, not to exceed five in one year, any foreign physicians who may be judged worthy, from their superior attainments in medicine; provided that the names of persons proposed for Honorary Membership shall have been presented at a previous annual meeting. Such Honorary Members shall have all the privileges of members except voting and eligibility to office.

SECTION 5. All members of the Institute who have maintained

twenty-five consecutive years of membership shall be considered *Senior Members*, and be exempt from the payment of annual dues; and the names of such members shall be printed first in the list of members, in capital letters.

SECTION 6. Of State Societies represented in the Institute, the Presidents shall be *ex-officio* Vice-Presidents, and the Recording Secretaries shall be *ex-officio* Corresponding Secretaries of the Institute, and these officers shall communicate through the various bureaus any facts or information concerning the condition of these societies, and the progress of medicine and homœopathy in their several States.

ARTICLE VI.—DUES.

SECTION 1. Members shall pay annually the sum of five dollars toward defraying the expenses of the Institute. The proceedings of the Institute will be sent to those members only who have paid their dues.

ARTICLE VII.—BUREAUS AND COMMITTEES.

SECTION 1. There shall be a Bureau of Materia Medica, Pharmacy, and Provings, consisting of at least nine members, which shall collate facts relating to the materia medica and pharmacy, and institute, collect, and arrange provings of drugs.

SECTION 2. There shall be a Bureau of Clinical Medicine, consisting of at least nine members, which shall collect facts relating to clinical medicine generally, and especially to any endemic or epidemic diseases which may exist in the country.

SECTION 3. There shall be a Bureau of Obstetrics, consisting of at least nine members, which shall collect and report to the Institute facts and observations on subjects pertaining thereto.

SECTION 4. There shall be a Bureau of Gynæcology, consisting of at least nine members, which shall collect and report to the Institute facts and observations relating to the diseases of women.

SECTION 5. There shall be a Bureau of Pædology, consisting of at least nine members, which shall collect and report to the Institute facts and observations relating to the diseases of children.

SECTION 6. There shall be a Bureau of General Sanitary Science, Climatology, and Hygiene, consisting of at least nine members, which shall report to the Institute facts and observations relating to these departments.

SECTION 7. There shall be a Bureau of Surgery, consisting of at least nine members, which shall report upon all improvements in surgery.

SECTION 8. There shall be a Bureau of Organization, Registration, and Statistics, consisting of at least seven members, which shall keep a register of all homœopathic physicians, or those who claim to be such, in the United States, distinguishing those who are members of the Institute, and also members of the State Societies; prepare a list of all State and local societies, colleges, hospitals, asylums, dispensaries, and journals, with their organization; and collect statistics regarding homœopathy, its status and progress.

SECTION 9. There shall be a Bureau of Anatomy and Physiology, consisting of at least nine members, which shall report to the Institute the advances made in these departments of medical science.

SECTION 10. There shall be a Bureau of Psychological Medicine, consisting of at least seven members, which shall report to the Institute the results of the homœopathic treatment of psychological diseases.

SECTION 11. There shall be a Bureau of Ophthalmology, Otology, and Laryngology, to consist of at least seven members, which shall report to the Institute improvements in these departments.

SECTION 12. There shall be a Bureau of Microscopy, consisting of at least five members, which shall institute examinations and report annually all discoveries and improvements in that department of science.

SECTION 13. There shall be a Committee on Legislation, consisting of at least five members, which shall look after all matters of legislation affecting the interests of the Institute and its members.

SECTION 14. There shall be a Committee on Literature, consisting of at least five members, which shall report annually on homœopathic literature.

SECTION 15. There shall be a Committee on Foreign Correspondence, consisting of at least five members, which shall correspond with foreign homœopathic physicians on matters relating to homœopathy, and report annually to the Institute. All members of the Institute travelling abroad, shall be considered members of the said committee, and the names of all such who may furnish communications from abroad, at any annual meeting of the Institute, shall be published with those constituting said committee, in the annual volume of the proceedings of this body.

SECTION 16. Immediately after the reception of the reports of the respective bureaus and committees, the Institute shall proceed to the election of a chairman for the bureau or committee for the ensuing year; and the chairman thus elected shall ap-

point the other members of his bureau or committee, and announce the appointments to the Institute, through the President, before the close of the session of the Institute. No member of the Institute shall be chairman of more than one bureau or standing committee. No member of a bureau shall be reappointed to that bureau who has failed to present a paper to the Institute for two consecutive years. If any member of a bureau shall resign, or decline to serve, the chairman of the bureau may fill the vacancy, and shall notify the General Secretary of the fact.

SECTION 17. Each chairman of a bureau shall convene the members of his bureau as soon as may be after their appointment, at which time there shall be selected a special subject to be reported on by them, or to be discussed by the Institute at its next annual session.

SECTION 18. The chairmen of similar bureaus in State societies represented in the Institute, shall be *ex-officio* corresponding members of the bureaus.

SECTION 19. All papers presented to the Institute must be through an appropriate bureau or committee, and furnished to the chairman thereof at least three months before the meeting of the Institute. The chairman shall forward the papers upon the special subject selected, or a selection therefrom, together with the titles of all, to the General Secretary, at least two months before the meeting of the Institute, that he may have copies printed and furnished to the respective bureaus, before the meeting, and to the members present at the meeting; and the time allotted to a bureau shall be occupied in the discussion of such papers upon the special subject as the Institute may select.

SECTION 20. No report or paper will be received by the Institute in an incomplete or unfinished condition; and no paper shall be published in the *Transactions* which has been previously published. All reports and papers, which are to be published in the *Transactions*, shall be furnished to the General Secretary within thirty days after the close of the session.

SECTION 21. No bureau papers shall be published in the *Transactions* but those bearing on the special subjects selected; and the discussions on those subjects shall be published in their appropriate sections.

SECTION 22. The Executive Committee shall constitute the Committee of Publication.

ARTICLE VIII.—AMENDMENTS.

These By-laws may be altered or amended by a vote of two-thirds of the members present at any annual meeting.

ORDER OF BUSINESS.

Calling meeting to order.
Address by the President.
Appointment of committee to consider and report on suggestions of the President.
Appointment of Committee on Credentials.
Report of the Secretary.
Report of the Treasurer.
Appointment of committee to audit Treasurer's account.
Reports of committees.
Reports of bureaus.
Unfinished business from last meeting.
Miscellaneous business.
Election of officers.
Adjournment.

LII.

RESOLUTIONS.

ADOPTED JUNE 13, 1850.

Resolved, That, in the opinion of this Institute, all methods of arriving at the curative properties of a drug, except by means of its pathogenetic effects, are uncertain.

ADOPTED JUNE 12, 1851.

Resolved, That members of the Institute who may change their place of residence are hereby requested to give notice of such change to the General Secretary.

ADOPTED JUNE 8, 1854.

Resolved, That all committees appointed to report on scientific subjects, failing to report within one year after their appointment, shall be discontinued, except by a vote of two-thirds of the members present.

Resolved, That we regard the homœopathic law as coextensive with disease, and that a resort to any other medicinal means than those pointed out by the law *similia similibus*, is the result, in part, of the incompleteness of our Materia Medica, but mainly the result of a want of sufficient knowledge, on the part of the physician, of those remedies already possessed by our school; and not of an insufficiency of the homœopathic law.

Resolved, That the pharmaceutists of the homœopathic school be recommended to use, in the preparation of drugs by trituration, the proportions of ten grains of the drug to ninety grains of sugar of milk; and, for the sake of uniformity, to retain the numerical designation adopted by Hahnemann, and continued by the majority of homœopathic physicians.

ADOPTED JUNE 7, 1855.

Resolved, That the Institute cannot view the advertising of remedies as nostrums, or the combining of several medicines in one prescription, in any other light than as irregular practice, and subversive of the best interests of homœopathy; and that we will not tolerate in our membership one guilty of such practice.

ADOPTED JUNE 5, 1856.

Resolved, That, in accordance with the usage and dignity of scientific bodies, which very properly discountenance all extraordinary efforts on the part of members of such bodies to enhance individual interest, we, as an associated scientific body, will discountenance all like extraordinary efforts on the part of members of this Institute; and, whenever such cases come to our knowledge well authenticated, we will sever such members from our connection, as no longer worthy of our sympathy and fellowship.

ADOPTED JUNE 4, 1857.

Resolved, That it is the duty of the American Institute of Homœopathy to extend a fostering care to the homœopathic medical colleges of the United States, and exert its influence in directing students of medicine, who are seeking admission to the honors of the profession, to their halls for instruction.

Resolved, That the American Institute of Homœopathy does not necessarily indorse the doctrines contained in the reports of committees by accepting and publishing such reports with the proceedings.

ADOPTED JUNE 2, 1859.

Resolved, That in all publications of the Institute, whenever attenuations, dilutions, or potencies are mentioned, the centesimal scale is implied, unless a different scale is expressed.

Resolved, That, in the case of such papers ordered for publication as are objectionable on account of their length, the Publishing Committee may, with the consent of the authors, abbreviate the same, or suspend the publication thereof until otherwise instructed.

ADOPTED JUNE 7, 1866.

Resolved, That members who are three years in arrears, and who do not pay within one year after being so notified by the

Treasurer, shall be considered as having forfeited membership, and their names shall be stricken from the list.

Resolved, That, while we approve the establishment of life insurance companies which make a distinction in favor of the patrons of homœopathy, and while we desire to encourage such organizations, nevertheless with a view to impartiality, we hereby forbid the use of the name of the American Institute of Homœopathy in any manner calculated to advertise or promote the interests of one such company in preference to another.

ADOPTED JUNE 7, 1867.

Resolved, That, in the organization of life insurance companies which discriminate in favor of practical homœopathists, we recognize an important instrumentality, which, by showing the superiority of homœopathic treatment, will contribute to the more rapid adoption of the principles of medical science promulgated by the illustrious Hahnemann; and that, whenever practicable, the members of this Institute will give to such organization a united and cordial support.

ADOPTED JUNE 9, 1869.

Resolved, That properly qualified physicians, men or women, are eligible to membership of the American Institute of Homœopathy.

Resolved, That the Secretary be instructed to publish the forthcoming volumes of the *Transactions* so as to correspond with the general plan followed during the last two years.

Resolved, That the Bureau of Clinical Medicine be requested to give attention to the collection of clinical verifications of the symptoms contained in our Materia Medica, and to include such verifications in their reports, with whatever details they deem proper, giving credit to the authors.

Resolved, That the Institute invite State societies to co-operate in this work of clinical verification of the Materia Medica.

ADOPTED JUNE 8, 1870.

Resolved, That the Censors be required to state in what medical college and year the applicant for membership graduated, and that this statement be published with the names of the members after their admission.

Resolved, That the reading of reports of committees be limited to fifteen minutes, and if said reports are too lengthy to be read

within that time, the committee shall present a brief statement of the contents of the report, or read by title, as they elect, before it is referred to the appropriate committee.

Resolved, That the Institute order the preparation of a homœopathic dispensatory, to be submitted to the Institute before publishing, and direct the President to consider the suggestion of the Committee on a Dispensatory, concerning the plan and selection of the committee.

Resolved, That each member of the American Institute will best subserve the interests of homœopathic medicine by using great care to avoid accepting any student of medicine into his office who does not or cannot give evidence of possessing the preliminary education recommended in the report of the Committee on Education.

Resolved, That the resolution relating to qualification apply to all students whose term of pupilage shall commence subsequent to the year 1870, and that every effort be made to acquaint the profession at large with the action of the Institute.

Resolved, That candidates for membership in this Institute, who shall have graduated later than 1873, shall be required to present evidence of having attained the standard of qualification adopted by this Institute.

ADOPTED JUNE 9, 1874.

Resolved, That hereafter all provings by a single prover, presented through the Bureau of Materia Medica, Pharmacy, and Provings, be referred back to the bureau, to be retained by them until a sufficient number of provings are obtained to warrant the bureau in collating the same and presenting them to the Institute for publication; and such collation and presentation shall be a part of the duty of that bureau.

ADOPTED JUNE 10, 1874.

Resolved, That the Committee on Climatology of the American Institute of Homœopathy be, and they are hereby instructed, to secure reports from the chief points of observation of the Signal Service of the United States Army, establishing the prevalence of various diseases at those points from time to time.

ADOPTED JUNE 11, 1874.

Resolved, That the American Institute of Homœopathy cordially and earnestly recommends all homœopathic colleges in this country to adopt a uniform system of education and requirement;

and to this end would further recommend to each homœopathic college to appoint one or more members of its faculty to constitute an Intercollegiate Committee, whose duty it shall be to recommend and adopt such rules of comity and other measures as will further the above object.

ADOPTED JUNE 12, 1874.

Resolved, That hereafter any member of the Institute who shall publish, or cause to be published, any report or paper read before the Institute, accepted and referred to the Committee of Publication, elsewhere than in the regular volume of *Transactions*, shall be deemed guilty of an offence, which shall subject the member offending to the censure of the Institute.

Resolved, That the bureaus of the Institute that pertain to practical medicine and surgery be hereafter arranged in rotation, so that each one may come first in its turn in successive years.

ADOPTED JUNE 15, 1875.

Resolved, That *Sectional Meetings* of any bureau may be held at the call of the chairman of that bureau, provided such meetings are not held during the sittings of the Institute.

Whereas, It is now a difficult matter to obtain mortuary reports from many of our cities and towns, therefore

Resolved, That this body would recommend to the members of the Institute, that they, in their respective cities and towns, where published reports are to be had, obtain and furnish annually to the Bureau of General Sanitary Science, Climatology and Hygiene, a copy of such published reports; and further, that when such reports are made up, State statistical mortuary reports be likewise sent to this bureau.

Resolved, That in States, cities, and towns where these reports are not made and published, they be urged to publish them for the general good of the country, as well as for local advantages.

LIII.

MEMBERS.

The ? denotes that the residence is doubtful; the figures show the date of membership. Members are requested to inform the General Secretary of any change in the address of any of the members.

The following resolution, passed June, 1866, went into effect June, 1867:

Resolved, That members who are three years in arrears, and who do not pay within one year after being so notified by the Treasurer, shall be considered as having forfeited membership, and their names shall be stricken from the list.

SENIOR MEMBERS.

1846. ANNIN, J. D., M.D., Newark, N. J.
1844. BALL, ALONZO S., M.D., 43 W. 11th St., New York.
1844. BARLOW, SAMUEL B., M.D., 55 E. 21st St., New York.
1848. BARROWS, GEORGE, M.D., Taunton, Mass.
1846. BARROWS, IRA, M.D., Providence, R. I.
1847. BAXTER, WILLIAM, M.D., Wappinger's Falls, N. Y.
1846. BAYARD, EDWARD, M.D., 8 W. 40th St., New York.
1846. BELCHER, GEORGE E., M.D., 43 E. 21st St., New York.
1846. BENNETT, HILEM, M.D., Rochester, N. Y.
1846. BERENS, BERNARD, M.D., 1507 Arch St., Philadelphia.
1846. BERENS, JOSEPH, M.D., S. W. cor. Broad and Green Sts., Philadelphia.
1845. BOARDMAN, J. C., M.D., Trenton, N. J.
1844. *BOWERS, BENJAMIN F., M.D., New York.
1846. *BRADFORD, RICHMOND, M.D., Auburn, Me.
1848. BURKE, A. C., M.D., 142 Union St., Brooklyn, N. Y.
1844. CATOR, H. HULL, M.D., Roxbury, N. Y.
1847. CHASE, HIRAM L., M.D., Cambridge, Mass.
1846. CLARK, ELIPHALET, M.D., Portland, Me.
1844. CLARK, LUTHER, M.D., 55 E. Newton St., Boston, Mass.

* Deceased.

1846. *Clarke, Peleg, M.D., Providence, R. I.
1845. Clary, Lyman, M.D., 54 Warren St., Syracuse, N. Y.
1848. Cook, Abijah P., M.D., Hudson, N. Y.
1848. Cummings, J. M., M.D., Portland, Me.
1844. Detwiler, H., M.D., Easton, Pa.
1847. Dodge, Moses, M.D., Portland, Me.
1848. Donovan, Thomas W., M.D., Tompkinsville, Staten Island, N. Y.
1847. Douglas, J. S., M.D., Milwaukee, Wis.
1846. Ehrman, Benjamin, M.D., 46 W. 7th St., Cincinnati, O.
1846. Ehrman, F., M.D., 84 W. 7th St., Cincinnati, O.
1850. Foote, George F., M.D., Stamford, Conn.
1844. Fuller, Milton, M.D., 35 Essex St., Boston, Mass.
1844. Gallupe, William, M.D., Bangor, Me.
1849. Gardiner, Daniel R., M.D., Norristown, Pa.
1846. Gardiner, Richard, M.D., 146 N. 20th St., Philadelphia.
1844. Gray, John F., M.D., Fifth Avenue Hotel, New York.
1848. Guernsey, Egbert, M.D., 18 W. 23d St., New York.
1846. Guernsey, Henry N., M.D., 1423 Chestnut St., Philad'a.
1847. Guy, Samuel S., M.D., 179 Remsen St., Brooklyn, N. Y.
1846. Hallock, Lewis, M.D., 34 E. 39th St., New York.
1846. Helmuth, Wm. S., M.D., 1904 Spruce St., Philadelphia.
1846. Hempel, Charles J., M.D., Grand Rapids, Mich.
1844. Hering, Constantine, M.D., 112 N. 12th St., Philad'a.
1846. Holt, Daniel, M.D., Lowell, Mass.
1844. Jeanes, Jacob, M.D., 521 Vine St., Philadelphia.
1846. Jones, E. Darwin, M.D., Albany, N. Y.
1848. Keep, Lester, M.D., corner Gates and Vanderbilt Avs., Brooklyn, N. Y.
1844. Kimball, David S., M.D., Sackett's Harbor, N. Y.
1848. Koch, A. W., M.D., 118 N. 12th St., Philadelphia.
1845. Lippe, Adolph, M.D., 1204 Walnut St., Philada., Pa.
1844. McManus, F. R., M.D., 71 Franklin St., Baltimore, Md.
1844. *Mairs, James, M.D., New York.
1844. Manchester, Charles F., M.D., 49 Main St., Pawtucket, R. I.
1848. Marcy, Erastus E., M.D., 1 W. 34th St., New York.
1846. *Morrill, Alpheus, M.D., Concord, N. H.
1848. Munger, Erastus A., M.D., Waterville, N. Y.
1844. Neidhard, Charles, M.D., 1511 Arch St., Philada., Pa.
1848. Norton, Lucian H., M.D., Bridgeport, Conn.
1844. Paine, Henry D., M.D., 26 West 30th St., New York.
1850. Paine, Horace M., M.D., Albany, N. Y.

* Deceased.

1848. PALMER, MILES W., M.D., 235 E. 18th St., New York.
1844. PAYNE, WILLIAM E., M.D., Bath, Me.
1847. POOLE, AUGUSTUS, M.D., 232 W. 1st St., Oswego, N. Y.
1844. PULTE, JOSEPH H., M.D., 293 Walnut St., Cincinnati, O.
1848. RAYMOND, JONAS C., M.D., 248 Genesee St., Utica, N.Y.
1848. READING, J. R., M.D., Somerton, Pa.
1846. RHEES, MORGAN J., M.D., Newtonville, Mass.
1847. RICHARDSON, EDW. T., M.D., 141 Montague St., Brooklyn, N. Y.
1849. RODMAN, WILLIAM W., M.D., New Haven, Conn.
1844. ROBINSON, HORATIO, M.D., Auburn, N. Y.
1848. RUSSEL, GEORGE, M.D., 14 Lynde St., Boston, Mass.
1844. SCHMIDT, J., M.D., 92 Eutaw St., Baltimore, Md.
1847. SHACKFORD, RUFUS, M.D., Portland, Me.
1846. SHEPARD, A., M.D., Glendale, O.
1857. SHIPMAN, GEORGE, E., M.D., Chicago, Ill.
1844. SKIFF, CHARLES H., M.D., New Haven, Conn.
1846. SMALL, ALVIN E., M.D., 583 Wabash Av., Chicago, Ill.
1848. SMITH, D. S., M.D., 402 Michigan Av., Chicago, Ill.
1850. SPRINGSTEED, DAVID, M.D., Albany, N. Y.
1846. STEVENS, C. A., M.D., Scranton, Pa.
1844. SWAZEY, GEORGE W., M.D., Springfield, Mass.
1848. TAFT, CHARLES A., M.D., Hartford, Conn.
1847. THAYER, DAVID, M.D., 94 Boylston St., Boston, Mass.
1844. WARD, ISAAC M., M.D., Newark, N. J.
1844. WARD, WALTER, M.D., Mount Holly, N. J.
1848. WARNER, LEWIS T., M.D., 39 E. 19th St., New York.
1844. WELD, C. M., M.D., Norfolk House, Boston Highlands, Mass.
1848. WELLS, LUCIEN B., M.D., 225 Genesee St., Utica, N. Y.
1844. WELLS, P. P., M.D., 84 Clinton St., Brooklyn, N. Y.
1847. WHITTLE, JOSHUA F., M.D., Nashua, N. H.

MEMBERS.

1870. Abell, D. T., M.D., Sedalia, Mo.
1872. Abercrombie, Wm. H., M.D., Jersey City, N. J.
1871. Adams, Myron H., M.D., Palmyra, N. Y.
1860. Ahlborn, Henry, M.D., 76 Charles St., Boston, Mass.
1867. Albertson, J. A., M.D., 109 O'Farrell St., San Francisco, Cal.
1871. Allen, Richard C., M.D., 4708 Paul St., Frankford, Phila.
1871. Allen, Samuel E., M.D., Trenton, N. J.
1866. Allen, Timothy F., M.D., 3 East 33d St. New York.
1872. Allen, Henry C., M.D., Brantford, Ontario.

1873. Allen, George D., M.D., Portland, Mich.
1860. Alley, James T., M.D., St. Paul, Minn.
1875. Alling, C. P., M.D., Dunkirk, N. Y.
1868. Alvord, Samuel, M.D., Chicopee Falls, Mass.
1874. Anderson, Jeremiah, M.D., Rochester, N. Y.
1871. Andrews, Wm. J., M.D., Newark, N. J.
1853. Angell, Henry C., M.D., 16 Beacon St., Boston, Mass.
1869. Arcularius, Philip E., M.D., 46 E. 21st St., New York.
1871. Armor, Smith, M.D., Columbia, Pa.
1873. Armstrong, W. P., M.D., 2412 N. 16th St., St. Louis, Mo.
1869. Arthur, A. A., M.D., Vergennes, Vt.
1874. Arthur, Charles, M.D., Scranton, Pa.
1858. Ashton, A. H., M.D., 730 S. 10th St., Philadelphia.
1871. Aten, Henry F., M.D., 34 Hanson Place, Brooklyn, N. Y.
1875. Austin, John, M.D., Norwalk, O.
1868. Bacmeister, Theodore, M.D., Toulon, Ill.
1871. Bacon, Charles A., M.D., New York.
1867. Baer, O. P., M.D., Richmond, Ind.
1874. Baethig, Henry, M.D., Buffalo, N. Y.
1870. Bagley, H. B., M.D., Marshall, Mich.
1867. Bailey, George W., M.D., Elizabeth, N. J.
1873. Bailey, Benjamin F., Jr., M.D., Lansing, Mich.
1874. Bailey, Silas, M.D., Toledo, O.
1871. Baker, Daniel P., M.D., Little Valley, Cattaraugus Co., N. Y.
1870. Baker, R. F., M.D., Davenport, Iowa.
1872. Baker, Mary G., M.D., Worcester, Mass.
1875. Baker, Milton H., M.D., Highland Park, Ill.
1871. Baldwin, Aaron, M.D., Georgetown, D. C.
1857. Baldwin, Jared G., M.D., 8 E. 41st St., New York.
1870. Bancroft, A. A., M.D., Lansing, Mich.
1866. Baner, William J., M.D., 13 E. 33d St., New York.
1867. Barker, William C., M.D., Waukegan, Ill.
1853. Barnes, George W., M.D., San Diego, Cal.
1875. Barr, Frank H., M.D., Cleveland, O.
1875. Bahrenburg, William N., M.D., Indianapolis, Ind.
1868. Barrows, George S., M.D., San Jose, Cal.
1857. Bartlett, A. R., M.D., Aurora, Ill.
1867. Bartlett, Edward G., M.D., 43 E. 11th St., New York.
1873. Bartlett, Henry H., M.D., Geneva, O.
1874. Bass, Edgar C., M.D., Cazenovia, N. Y.
1868. Baxter, H. H., M.D., Cleveland, O.
1867. Baylies, B. L. B., M.D., Astoria, N. Y.
1870. Beaumont, John H., M.D., Freeport, Ill.
1869. Becker, Benjamin, M.D., Pottsville, Pa.

1865. Beckwith, D. H., M.D., Cleveland, O.
1871. Beckwith, E. C., M.D., Columbus, O.
1857. Beckwith, Seth R., M.D., 143 W. 4th St., Cincinnati, O.
1875. Bedell, R. Heber, M.D., New York.
1868. Bell, James B., M.D., Augusta, Me.
1867. Bell, James S., M.D., Cedar Falls, Iowa.
1857. Bell, William C., M.D., Middletown, Conn.
1872. Bender, Prosper, M.D., Quebec, Dominion of Canada.
1872. Benham, F. A., M.D., Angola, Ind.
1875. Bennett, Asahel M., M.D., Rochester, N. Y.
1869. Bennett, Hollis K., M.D., Fitchburg, Mass.
1865. Benson, P. Oscar C., M.D., Skaneateles, N. Y.
1874. Bennit, William W., M.D., 921 New York Ave., Washington, D. C.
1872. Berghaus, Alex., M.D., 49 W. 24th St., New York.
1870. Betts, B. Frank, M.D., 1700 Girard Av., Philadelphia.
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1868. Biggar, Hamilton F., M.D., Cleveland, O.
1871. Bingaman, C. F., M.D., Pittsburg, Pa.
1854. Bishop, D. F., M.D., Lockport, N. Y.
1869. Bishop, Herbert M., M.D., 87 Franklin St., Norwich, Conn.
1870. Bishop, Lewellyn A., M.D., Fond du Lac, Wis.
1869. Bishop, R. S., M.D., Medina, N. Y.
1853. Bissell, Arthur F., M.D., 157 Maiden Lane, N. Y.
1872. Blake, Mary J. Safford, M.D., 16 Boylston Pl., Boston, Mass.
1869. Bloss, J. P., M.D., Troy, N. Y.
1865. Boericke, F. E., M.D., 635 Arch St., Philadelphia, Pa.
1874. Bollen, George M., M.D., South Australia.
1874. Bond, Mary E., M.D., New York.
1875. Bosley, S. Clement, M.D., Lost Creek, W. Va.
1872. Bossert, Charles, M.D., 2350 Second Av., New York.
1870. Botsford, Alva H., M.D., Grand Rapids, Mich.
1869. Bowen, G. W., M.D., Fort Wayne, Ind.
1871. Bowie, Alonzo P., M.D., Uniontown, Pa.
1869. Bowman, Benjamin, M.D., Harrisburg, Pa.
1875. Bowman, John R., M.D., Grand Rapids, Mich.
1866. Boyce, C. William, M.D., Auburn, N. Y.
1870. Boyer, Francis W., M.D., Pottsville, Pa.
1874. Boynton, Frank H., M.D., New York.
1860. Bradford, F. Standish, M.D., 55 W. 34th St., New York.
1871. Bradford, Herbert C., M.D., Lewiston, Me.
1869. Bradford, Thomas L., M.D., Skowhegan, Me.

1865. Bradford, T. C., M.D., 170 W. Fourth St., Cincinnati, O.
1873. Bradford, Oliver L., M.D., Andover, Mass.
1874. Bradner, Fred. H., M.D., Middletown, N. Y.
1853. Brainerd, Jehu, M.D., Washington, D. C.
1869. Breyfogle, Charles W., M.D., San José, Cal.
1873. Breyfogle, W. L., M.D., Louisville, Ky.
1875. Breyfogle, Edward S., M.D., San José, Cal.
1869. Brick, Francis, M.D., Worcester, Mass.
1869. Brigham, G. N., M.D., Montpelier, Vt.
1874. Brigham, Reeder S., M.D., Cairo, Ill.
1869. Briry, Milton S., M.D., Bath, Me.
1859. Brooks, Charles A., M.D., Clinton, Mass.
1872. Brooks, Chas. G., M.D., East Boston, Mass.
1869. Brown, D. M., M.D., Los Angeles, Cal.
1867. Brown, Edward V., M.D., Tarrytown, N. Y.
1869. Brown, Granville Curtis, M.D., 29 West 30th Street, New York.
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1867. Brown, Titus L., M.D., 45 Collier St., Binghamton, N.Y.
1872. Brown, William, M.D., 647 N. 10th St., Philadelphia, Pa.
1872. Brown, Samuel, M.D., 651 N. 10th St., Philadelphia, Pa.
1874. Brown, Charles R., M.D., Lynn, Mass.
1871. Bryan, Wm. J., M.D., Corning, N. Y.
1874. Bryan, Edward W., M.D., Ovid, N. Y.
1867. Bryant, Melville, M.D., 374 Adelphi St., Brooklyn, N.Y.
1869. Buck, J. D., M.D., 305 Race St., Cincinnati, O.
1868. Budlong, John C., M.D., Centredale, R. I.
1873. Buffum, J. H., M.D., 324 Penn Avenue, Pittsburg, Pa.
1867. Bumstead, S. J., M.D., Pekin, Ill.
1867. Bunting, Thomas C., M.D., East Mauch Chunk, Pa.
1872. Burdick, Alice De Baun, M.D., New York City.
1867. Burdick, Stephen P., M.D., 351 W. 34th St., New York.
1854. Burgher, J. C., M.D., 332 Penn Av., Pittsburg, Pa.
1874. Burnett, W. H., M.D., Matawan, N. J.
1859. Burpee, John A., M.D., Malden, Mass.
1869. Burr, Charles H., M.D., Portland, Me.
1870. Bushnell, Lafayette, M.D., 302 E. 12th St., New York.
1875. Butler, Clarence M., M.D., Mont Clair, N. J.
1873. Butler, W. M., M.D., Middletown, New York.
1871. Cadmus, James M., M.D., Hammondsport, N. Y.
1868. Calvert, William J., M.D., Jackson, Mich.
1867. Campbell, C. E., M.D., 314 E. 18th St., N. Y.
1874. Campbell, Merrett B., M.D., Joliet, Ill.
1873. Canfield, Correeta T., M.D., Titusville, Pa.
1875. Carleton, Edward N., M.D., New York.

1874. Carmichael, Jas. A., M.D., New York.
1869. Carpenter, Charles H., M.D., 1 Fifth St., Troy, N. Y.
1873. Caruthers, R. E., M.D., 294 Penn Avenue, Pittsburg, Pa.
1854. Cate, Shadrach M., M.D., Salem, Mass.
1859. Chamberlain, William B., M.D., Worcester, Mass.
1873. Chantler, I. B., M.D., Alleghany City, Pa.
1875. Chapman, Miller J., M.D., Pittsburg, Pa.
1871. Chase, Maurice J., M.D., Galesburg, Ill.
1873. Chase, Sara B., M.D., Cleveland, O.
1869. Cheever, D. A., M.D., Champaign, Ill.
1870. Cheney, Benjamin H., M.D., 189 Church St., New Haven, Conn.
1871. Child, Nelson N., M.D., Ogdensburg, N. Y.
1875. Childs, Orrin D., M.D., Akron, O.
1865. Childs, W. R., M.D., 204 Penn Av., Pittsburg, Pa.
1870. Chittenden, George W., M.D., Janesville, Wis.
1871. Church, Charles A., M.D., Norwich, N. Y.
1871. Clapp, Herbert C., M.D., 518 Tremont St., Boston, Mass.
1850. Clark, J. K., M.D., Sacramento, Cal.
1874. Clark, Jos. N., M.D., Harrisburg, Pa.
1854. Clarke, Henry B., M.D., New Bedford, Mass.
1859. Clarke, John L., M.D., Fall River, Mass.
1867. Cleaveland, William L., M.D., Atlanta, Ga.
1869. Cloud, Charles R., M.D., Burlington, N. J.
1869. Cloud, J. A., M.D., 914 S. 19th St., Philadelphia, Pa.
1869. Coburn, Edward S., M.D., 70 Second St., Troy, N. Y.
1874. Coburn, Jesse M., M.D., South Framingham, Mass.
1869. Cochran, Charles A., M.D., Winthrop, Me.
1865. Coffreen, J. Q. A., M.D., Dayton, O.
1866. Cogswell, C. H., M.D., Clinton, Iowa.
1870. Colburn, S. H., M.D., Springfield, Vt.
1871. Cole, H. P., M.D., 23 University Place, Chicago, Ill.
1869. Cole, S. P., M.D., 23 University Place, Chicago, Ill.
1851. Collins, H. A., M.D., Springfield, Mass.
1874. Colton, Henry E., M.D., Buffalo, N. Y.
1869. Compton, J. Augustine, M.D., Indianapolis, Ind.
1874. Conant, Clarence M., M.D., Middletown, N. Y.
1875. Connor, Delania T., M.D., New Haven, Conn.
1869. Cook, Charles P., M.D., Hudson, N. Y.
1867. Cook, E. G., M.D., 342 Washington St., Buffalo, N. Y.
1866. Cook, William H., M.D., Carlisle, Pa.
1872. Cook, Susan S., M.D., Buffalo, N. Y.
1854. Cooke, N. F., M.D., 360 Michigan Av., Chicago, Ill.
1874. Coon, Henry C., M.D., Alfred Centre, N. Y.
1866. Cooper, J. F., M.D., Alleghany, Pa.

1866. Cooper, Frank B., M.D., Alleghany, Pa.
1874. Corbin, John L., M.D., Athens, Pa.
1869. Corcoran, Luke, M.D., Springfield, Mass.
1873. Cossaart, A. B., M.D., Otego, N. Y.
1856. Côté, Marcellin. M.D., 284 Penn Av., Pittsburg, Pa.
1869. Covert, Nelson B., M.D., Gêneva, N. Y.
1871. Covert, Rynear B., M.D., Seneca Falls, N. Y.
1865. Cowley, David, M.D., Station A, Pittsburg, Pa.
1875. Cowperthwaite, Albert C., M.D., Nebraska City, Neb.
1854. Cox, James W., M.D., Albany, N. Y.
1869. Cragin, F. M., M.D., Norwood, Mass.
1874. Crank, C. D., M.D., Cincinnati, O.
1872. Crater, Henry, M.D., Somerville, N. J.
1875. Crawford, John S., M.D., Pittsburg, Pa.
1869. Crispell, G. D., M.D., Kingston, N. Y.
1865. Cropper, Charles C., M.D., Oxford, Butler Co., O.
1869. Cross, Hiram B., M.D., Jamaica Plain, Mass.
1875. Cross, Lester E., M.D., Stockton, Cal.
1869. Cross, William P., M.D., 476 Broadway, S. Boston, Mass.
1859. Cullis, Charles, M.D., 16 Somerset St., Boston, Mass.
1867. Currier, C. B., M.D., 134 E. 71st St., New York.
1874. Curtis, R. J., M.D., Mayville, N. Y.
1867. Cushing, Alvin M., M.D., Lynn, Mass.
1869. Cutler, William C., M.D., Chelsea, Mass.
1866. Dake B. F., M.D., Pittsburg, Pa.
1852. Dake, Jabez P., M.D., 21 N. Vine St., Nashville, Tenn.
1872. Dake, William C., M.D., Nashville, Tenn.
1870. Danforth, Willis, M.D., 1224 Wabash Av., Chicago, Ill.
1874. Darling, Henry H., M.D., Keene, N. H.
1875. Dart, Geo. M.D., Depeyster, N. Y.
1871. Davis, W. Beesley, M.D., 323 Richmond St., Philadelphia, Pa.
1875. Daw, Fielding L., M.D., Evansville, Ind.
1868. Dayfoot, Herbert M., M.D., Mount Morris, N. Y.
1869. De Derkey, F. F., M.D., Indianapolis, Ind.
1874. Delamater, N. B., M.D., 65 22d St., Chicago, Ill.
1869. Delavan, J. Savage, M.D., 1320 F Street, Washington, D.C.
1869. Dennis, L., M.D., Newark, N. J.
1851. Denison, Jeremiah T., M.D., Fairfield, Conn.
1875. Deschere, Martin, M.D., New York.
1858. Detwiler, J. J., M.D., Easton, Pa.
1873. Detwiler, W. M., M.D., Findley, O.
1858. Dinsmore, J. Pitman, M.D., 107 O'Farrell Street, San Francisco, Cal.
1875. Dodge, Rudolph L., M.D., Portland, Me.

1868. Doran, Charles R., M.D., Nashville, Tenn.
1869. Dorion, Charles N., M.D., 526 Wabash Av., Chicago, Ill.
1872. Doughty, Francis E., M.D., 50 W. 33d St., New York.
1867. Dowling, John W., M.D., 568 Fifth Av., New York.
1875. Doolittle, Egbert D., M.D., Morristown, N. J.
1875. Drake, Harlow B., M.D., Detroit, Mich.
1871. Drake, Jason W., M.D., Dover, N. H.
1871. Drake, Olin M., M.D., Ellsworth, Me.
1871. Dreher, Charles B., M.D., Tamaqua, Pa.
1869. Dudley, Pemberton, M.D., 684 N. 12th St., Philadelphia.
1866. Duncan, T. Cation, M.D., 287 W. Randolph St., Chicago.
1860. Dunham, Carroll, M.D., Irvington-on-Hudson, N. Y.
1874. Dunn, J. L., M.D., Titusville, Pa.
1873. Dunning, Julia A., M.D., Corry, Pa.
1866. Earhart, J. R., M.D., 1839 Arch St., Philadelphia.
1859. Eaton, Hosea B., M.D., Rockport, Me.
1874. Eddy, Hiram L., M.D., Geneva, N. Y.
1874. Edmonds, Wm. A., M.D., Memphis, Tenn.
1871. Edmundson, Walter F., M.D., Pittsburg, Pa.
1872. Edson, Susan A., M.D., 1308 I St., N. W., Washington, D. C.
1868. Eggert, William, M.D., Indianapolis, Ind.
1873. Eldridge, I. M., M.D., Flint, Mich.
1873. Eldridge, C. S., M.D., 972 Wabash Av., Chicago, Ill.
1869. Elliott, Joseph B., M.D., 493 Clinton Av., Brooklyn, N.Y.
1873. Ensign, Jennie, M.D., 357 W. 34th St., New York.
1867. Ermentraut, John P., M.D., 265 E. 4th St., New York.
1872. Esten, John, M.D., San Francisco, Cal.
1874. Evans, Albert J., M.D., Lockport, N. Y.
1872. Everett, Mary H., M.D., 333 W. 34th St., New York.
1875. Everett, Ambrose S., M.D., St. Louis, Mo.
1871. Fager, Charles B., M.D., Harrisburg, Pa.
1870. Fairbanks, Charles D., M.D., 28 Warren Av., Chicago, Ill.
1867. Fanning, Thomas C., M.D., Tarrytown, N. Y.
1859. Farnsworth, Charles H., M.D., E. Cambridge, Mass.
1872. Farrington, E. A., M.D., 1616 Mt. Vernon St., Philadelphia, Pa.
1866. Faulkner, R., M.D., Erie, Pa.
1871. Fetterhoff, Hiram R., M.D., Baltimore, Md.
1868. Finch, Edward W., M.D., New Rochelle, N. Y.
1855. Fincke, Bernhardt, M.D., 122 Livingston St., Brooklyn, N. Y.
1873. Fisher, A. Le Roy, M.D., Elkhart, Ind.
1867. Fiske, William M. I., M.D., 101 Division Avenue, Brooklyn, N. Y.

1867. Flagg, Levi W., M.D., Yonkers, N. Y.
1869. Flanders, David P., M.D., Belfast, Me.
1870. Flowers, J. R., M.D., Columbus, O.
1875. Ford, Julia, M.D., Milwaukee, Wis.
1875. Fraser, Edward J., M.D., San Francisco, Cal.
1874. Forbes, Geo. F., M.D., West Brookfield, Mass.
1867. Foster, Wm. D., M.D., Hannibal, Mo.
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1873. Frasier, Jerome B., M.D., Conneautville, Pa.
1858. Freeman, W., M.D., 39 W. 36th St., New York.
1860. Freeman, Wm. E., M.D., Wilmington, N. C.
1858. Freligh, Martin, M.D., 31 W. 24th St., New York.
1875. French Hayes C., M.D., Cleveland, O.
1871. French, Harriet S., M.D., 238 N. 9th St., Philadelphia.
1866. Friese, Michael, M.D., Harrisburg, Pa.
1872. Frye, Moses M., M.D., Auburn, N. Y.
1874. Fuller, Edward E., M.D., Buffalo, N. Y.
1858. Füllgraff, Otto, M.D., 53 Irving Place, New York.
1874. Fulton, Henry W., M.D., Pittsburg, Pa.
1869. Gale, J. A., M.D., West Medway, Mass.
1859. Gale, Stephen M., M.D., Newburyport, Mass.
1868. Gallinger, Jacob H., M.D., Concord, N. H.
1851. Gambell, W. P., M.D., 2 Rutland St., Boston, Mass.
1871. Garbereich, E. W., M.D., Mechanicsburg, Pa.
1869. Gardiner, M. M., M.D., Utica, N. Y.
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1873. Gaylord, E. P., M.D., Toledo, O.
1859. Geary, John F., M.D., 632 Howard St., San Francisco, Cal.
1859. Gersdorff, E. B. de, M.D., 138 Boylston St., Boston, Mass.
1869. Gifford, Gilbert L., M.D., Hamilton, N. Y.
1872. Gilchrist, J. G., M.D., Detroit, Mich.
1870. Gordon, George A., M.D., Sandusky, O.
1869. Gottschalk, Wm. von, M.D., 243 Westminster St., Providence, R. I.
1872. Goucher, E. T., M.D., Alliance, O.
1870. Graham, E. B., M.D., Detroit, Mich.
1869. Gramm, Gustavus E., M.D., 1656 Vienna St., Philad'a.
1872. Grant, Benj. F., M.D., Bath, N. Y.
1869. Graves, S. P., M.D., Saco, Me.
1871. Greenleaf, John T., M.D., Owego, N. Y.
1855. Gregg, Rollin R., M.D., 42 S. Division St., Buffalo, N. Y.
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1869. Griffith, J. J., M.D., Manayunk, Philadelphia, Pa.

1872. Griswold, W. N., M.D., 303 Powell St., San Francisco, Cal.
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1875. Guernsey, Jos. C., M.D., 1423 Chestnut St., Philadelphia.
1869. Guild, Phineas K., M.D., Columbia, S. C.
1867. Gumpert, B. B., M.D., 840 Franklin St., Philadelphia.
1870. Gwynn, Wm. M., M.D., Throopsville, N. Y.
1872. Haines, Jas. W., M.D., Waynesville, O.
1865. Hale, Edwin M., M.D., 65 22d St., Chicago, Ill.
1860. Hall, Geo. A., M.D., Chicago, Ill.
1869. Hall, John, M.D., 33 Richmond St., Toronto, Ontario.
1873. Hall, E. M., M.D., Fredericktown, O.
1873. Hall, John B., M.D., St. Paul, Minn.
1874. Hall, Robert, M.D., Providence, R. I.
1874. Hamisfar, Chas. W., M.D., St. Mary's, O.
1871. Hammond, Albert, M.D., Hagerstown, Md.
1852. Hammond, Milton, M.D., 57 N. Paca St., Baltimore, Md.
1875. Hart, Clement L., M.D., Sioux City, Iowa.
1865. Haynes, J. R., M.D., Indianapolis, Ind.
1871. Hardy, James E., M.D., 234 Madison Av., Baltimore.
1857. Harris, Charles Taylor, M.D., Ypsilanti, Mich.
1875. Hasbrouck, Everett, M.D., Brooklyn, N. Y.
1857. Hatch, Philo L., M.D., Minneapolis, Minn.
1867. Harding, Evan B., M.D., Northampton, Mass.
1869. Hawley, William A., M.D., Syracuse, N. Y.
1874. Hayward, Abner, M.D., Mt. Clemens, Mich.
1869. Hayward, Joseph W., M.D., Taunton, Mass.
1873. Hayward, Milton P., M.D., Oberlin, O.
1870. Heaton, J. G., M.D., Alliance, O.
1869. Hedges, S. P., M.D., 44 Centre St., Chicago, Ill.
1875. Hedges, William S., M.D., Warrensburg, Mo.
1853. Helmuth, Wm. Tod, M.D., 21 W. 37th St., New York.
1867. Hemenway, Horace P., M.D., E. Somerville, Mass.
1874. Heron, Charles D., M.D., Pittsburg, Pa.
1867. Heurtley, R. Walter, M.D., 107 4th Av., New York.
1871. Higbee, Albert E., M.D., St. Paul, Minn.
1871. Higbee, Chester G., M.D., St. Paul, Minn.
1867. Hill, Robert L., M.D., Dubuque, Iowa.
1870. Hills, Alfred K., M.D., 33 W. 23d St., New York.
1875. Hills, Arthur T., M.D., New York.
1869. Hiller, Frederick, M.D., San Francisco, Cal.

1873. Hiller, Frederick, Jr., M.D., San Francisco, Cal.
1867. Hinds, W. H. W., M.D., Milford, N. H.
1867. Hinks, E. F., M.D., Marlborough, Mass.
1873. Hitchcock, Dexter, M.D., Norwalk, Conn.
1859. Hobson, Joseph V., M.D., Richmond, Va.
1867. Hocking, William F., M.D, Newcastle, Pa.
1869. Hoffendahl, H. L. H., M.D., 25 Somerset St., Boston, Mass.
1854. Hoffman, H. H., M.D., 260 Penn Av., Pittsburg, Pa.
1860. Holcombe, William H., M.D., New Orleans, La.
1874. Hollet, Arthur P., M.D., Havana, N. Y.
1857. Holt, Aaron P., M.D., Lyndon, Ill.
1869. Holt, Edward B., M.D., Chelsea, Mass.
1870. Holt, L. E. B., M.D., Marshalltown, Iowa.
1869. Hoppin, Courtland, M.D., Providence, R. I.
1867. Hornby, John, M.D., Poughkeepsie, N. Y.
1858. Hotchkiss, Jesse T., M.D., Cornwall, Orange Co., N. Y.
1859. Houghton, H. A., M.D., Keeseville, N. Y.
1867. Houghton, Henry C., M.D., 50 W. 33d St., New York.
1875. House, Robert B., M.D., Tecumseh, Mich.
1870. Hoxsie, Augustus C., M.D., Buffalo, N. Y.
1867. Hoyne, Temple S., M.D., 817 Wabash Av., Chicago.
1869. Humphrey, Otis M., M.D., Minneapolis, Minn.
1869. Hoyt, William Henry, M.D., Syracuse, N. Y.
1869. Huebener, O. T., M.D., Litiz, Pa.
1870. Huebenger, John A., M.D., Wyoming, O.
1867. Hunt, F. W., M.D., 235 E. 59th St., New York.
1867. Hunt, Henry F., M.D., 315 Market St., Camden, N. J.
1865. Hunt, James G., M.D., Cloverport, Ky.
1865. Hunt, W. H., M.D., Covington, Ky.
1873. Hunt, J. B., M.D., Indianapolis, Ind.
1874. Hunt, Dwight B., M.D., New York.
1873. Hurd, Edwin H., M D., Rochester, N. Y.
1871. Hunting, Nelson, M.D., Albany, N. Y.
1869. Huson, Samuel K., M.D., Lawrence, Kansas.
1872. Hutchins, H. S., M.D., Batavia, N. Y.
1867. Ingalls, Frederic W., M.D., Kingston, N. Y.
1871. Iszard, Jacob, M.D., Glassboro, N. J.
1871. Jackson, Mercy B., M.D., 681 Tremont St., Boston, Mass.
1869. Jacobson, Edward H., M.D., Bethlehem, Pa.
1859. James, Bushrod W., M.D., N. E. corner 18th and Green Sts., Philadelphia.
1866. James, J. E., M.D., N. W. cor. 10th and Green Sts., Phila.
1867. Jayne, De Witt C., M.D., Florida, N. Y.
1874. Jaynes, A. W., M.D., Syracuse, N. Y.
1859. Jefferds, George P., M.D., Bangor, Me.

1875. Jenks, George Henry, M.D., San Francisco, Cal.
1873. Jenny, William H., M.D., Kansas City, Mo.
1869. Jernegan, H. Mayhew, M.D., 133 W. Newton St., Boston, Mass.
1860. Johnson, Isaac D., M.D., Kennett Square, Pa.
1870. Johnson, R. B., M.D., Ravenna, O.
1874. Johnson, Joseph D., M.D., Hartford, Conn.
1854. Jones, Elijah U., M.D., Taunton, Mass.
1875. Jones, Leonidas, M.D., Brooklyn, Mich.
1874. Jones, William G., M.D., Albany, Oregon.
1867. Jones, Henry C., M.D., Mount Vernon, N. Y.
1858. Jones, Joseph E., M.D., West Chester, Pa.
1868. Jones, S. A., M.D., Englewood, N. J.
1867. Jones, William A., M.D., Wilton, N. H.
1873. Jones, Gaius J., M.D., Cleveland, O.
1874. Jones, Charles E., M.D., Albany, N. Y.
1853. Joslin, Benjamin F., M.D., 50 W. 29th St., New York.
1871. Karsner, Charles, M.D., 4845 Germantown Av., Philada.
1867. Keep, J. Lester, M.D., 457 Vanderbilt Av., Brooklyn, N. Y.
1858. Kellogg, Edwin M., M.D., 29 E. 19th St., New York.
1874. Kellogg, Edward W., M.D., Hartford, Conn.
1872. Kennedy, J. C., M.D., East Birmingham, Pa.
1853. Kenyon, L. M., M.D., 86 W. Mohawk St., Buffalo, N. Y.
1874. Kenyon, William B., M.D., Buffalo, N. Y.
1874. Kern, William H., M.D., McKeesport, Pa.
1870. King, E. H., M.D., Clinton, Iowa.
1869. Kinne, Theodore Y., M.D., Paterson, N. J.
1870. Kippax, John R., M.D., Wheaton, Ill.
1869. Kittinger, Leonard, M.D., Wilmington, Del.
1875. Kline, John W., M.D., Louisville, Ky.
1874. Knapp, Theodore S., M.D., Union, N. Y.
1871. Kneass, Nicholas W., M.D., Baltimore, Md.
1871. Knerr, Calvin B., M.D., 112 N. 12th St., Philadelphia.
1875. Knickerbocker, Simeon C., M.D., Watertown, N. Y.
1867. Knight, Elam C., M.D., Waterbury, Conn.
1874. Knight, Edward B., M.D., Providence, R. I.
1875. Knight, George R., M.D., Collegeville, Pa.
1875. Kornderfer, Augustus, M.D., 605 N. 11th St., Philada.
1865. Krebs, Francis H., M.D., 42 Union Park, Boston, Mass.
1867. Kuhn, Carl W., M.D., 59 Bond St., New York.
1869. Kummel, Ernst R., M.D., Milwaukee, Wis.
1874. Laird William T., M.D., Watertown, N. Y.
1860. Lee, J. K., M.D., 3800 Chestnut St., Philadelphia.
1870. Leland, A. G., M.D., White Water, Wis.

1873. Leonard, W. H., M.D., Minneapolis, Minn.
1871. Lewis, Henry M., M.D., 78 Orange St., Brooklyn, N. Y.
1871. Lewis, Richard, M.D., 4550 Frankford Av., Philadelphia.
1875. Lewis, Joseph C., M.D., Philadelphia.
1874. Libby, Charles A., M.D., Arlington, Mass.
1867. Liebold, C. Theo., M.D., 21 W. 30th St., New York.
1867. Lilienthal, S., M.D., 230 W. 25th St., New York.
1874. Linnell, Jonathan E., M.D., Norwich, Conn.
1872. Lodge, Edwin, Jr., M.D., Detroit, Mich.
1869. Lord, I. S. P., M.D., 153 Madison St., Brooklyn, N. Y.
1869. Loring Charles P., M.D., Providence, R. I.
1858. Lougee, William H., M.D., Lawrence, Mass.
1875. Lowes, Joseph E., M.D., Dayton, O.
1868. Ludlam, Edward M. P., M.D., 318 W. Washington St., Chicago, Ill.
1857. Ludlam, Reuben, M.D., 526 Wabash Av., Chicago, Ill.
1875. Lukens, Benjamin F., M.D., Troy, O.
1872. Lukens, Isaiah, M.D., Newport, Del.
1873. Lukens, M. B., M.D., Cleveland, O.
1870. Lungren, Samuel S., M.D., Toledo, O.
1873. McChesney, A. C., M.D., College Hill, O.
1860. McClatchey, R. J., M.D., 918 N. 10th St., Philada., Pa.
1867. McClelland, J. H., M.D., 316 Penn Av., Pittsburg, Pa.
1873. McDermott, George C., M.D., Williamsport, Pa.
1874. McDonald, William O., M.D., New York.
1875. McGranaghan, William H., M.D., Hopkinsville, Ky.
1875. McGuire, David J., M.D., Norwalk, O.
1874. McLaren, William B., M.D., Oak Park, Ill.
1868. Macfarlan, Malcolm, M.D., 1721 Chestnut St., Phila., Pa.
1858. Macfarland, Lafayette, M.D., 2 East Brookline St., Boston, Mass.
1871. McGeorge, Wallace, M.D., Woodbury, N. J.
1866. McMurray, Robert, M.D., 192 Second Av., New York.
1867. McNeil, Daniel, M.D., Hudson City, N. J.
1867. Macomber, Addison P., M.D., Hackensack, N. J.
1860. Malin, John, M.D., 70 W. Chelten Av., Germantown, Philadelphia.
1867. Mandeville, F. B., M.D., Newark, N. J.
1872. Manson, Charles A., M.D., Springfield, Mass.
1868. Marix, Martin Mayer, M.D., Denver, Col.
1871. Martin, Constantine H., M.D., Allentown, Pa.
1868. Martin, H. N., M.D., 500 N. 18th St., Philadelphia, Pa.
1857. Martin, Joseph Lloyd, M.D., Mt. Vernon Place, Baltimore, Md.
1867. Mason, S. R., M.D., Duvall's Bluff, Ark.

1872. Massey, J. B., M.D., Sandusky City, O.
1859. Matthes, G. Felix, M.D., New Bedford, Mass.
1873. Mera, H. P., M.D., Pottsville, Pa.
1871. Mercer, Robert P., M.D., Chester, Pa.
1871. Middleton, Caleb S., M.D., 646 N. 10th St., Philada., Pa.
1871. Miller, Harrison V., M.D., Syracuse, N. Y.
1867. Miller, R. E., M.D., Oxford, N. Y.
1875. Miller, Christopher C., M.D., Detroit, Mich.
1869. Minor, John C., M.D., 10 E. 41st St., New York.
1858. Minton, Henry, M.D., 165 Joralemon St., Brooklyn, N. Y.
1868. Mitchell, George B. I., M.D., Fishkill, N. Y.
1866. Mitchell, John J., M.D., Newburgh, N. Y.
1867. Mitchell, J. W., M.D., 366 Clermont Av., Brooklyn, N. Y.
1866. Mitchell, J. S., M.D., 817 Michigan Av., Chicago.
1875. Mitchell, John N., M.D., Philadelphia.
1867. Moffat, Reuben C., M.D., 17 Schermerhorn St., Brooklyn, N. Y.
1867. Montanye, William D. L., M.D., Rondout, N. Y.
1874. Monroe, G. T., M.D., Mercer, Pa.
1875. Moore, George N., M.D., Springfield, O.
1869. Moore, James Otis, M.D., Haverhill, Mass.
1868. Moore, John, M.D., Liverpool, Eng.
1860. Moore, Joseph, M.D., Bridgeton, N. J.
1860. Moore, Thomas, M.D., N.E. cor. West Walnut Lane and Green St., Germantown, Philadelphia.
1855. Morgan, A. R., M.D., 107 Fulton St., New York.
1867. Morgan, John C., M.D., 1700 Chestnut St., Philada., Pa.
1873. Morrill, E. C., M.D., Norwalk, O.
1869. Morse, Martin V. B., M.D., Marblehead, Mass.
1867. Morse, Nathan R., M.D., Salem, Mass.
1872. Morse, Lucius D., M.D., Memphis, Tenn.
1869. Mosman, Nathan A., M.D., Norwalk, Conn.
1869. Mull, P. W., M.D., Ghent, N. Y.
1859. Munde, Charles, M.D., Wurzburg, Germany.
1875. Murrell, William J., M.D., Mobile, Ala.
1867. Negendank, Augustus, M.D., Wilmington, Del.
1871. Neville, William H. H., M.D., N. W. cor. 18th and Fairmount Av., Philada.
1872. Newell, William H., M.D., Jersey City, N. J.
1872. Nichol, Thomas, M.D., Montreal, D. of Canada.
1867. Nichols, Frank, M.D., Hoboken, N. J.
1859. Nichols, Lemuel B., M.D., Worcester, Mass.
1874. Nichols, G. F., M.D., Boston, Mass.
1872. Norton, George S., M.D., Ophthalmic Hospital, New York.

1873. Norton, Charles A., M.D., Portsmouth, N. H.
1869. Nott, Eliphalet, M.D., 332 Macon St., Brooklyn, N. Y.
1870. Nottingham, John, M.D., Paterson, N. J.
1857. Ober, L. E., M.D., La Crosse, Wis.
1872. Ockford George M., M.D., Hackensack, N. J.
1874. Olmstead, Charles C., M.D., Cleveland, O.
1859. Orme, F. H., M.D., Atlanta, Ga.
1856. Ormes, Cornelius, M.D., Jamestown, N. Y.
1872. Owen, Ira C., M.D., Sherburne, N. Y.
1865. Owens, William, M.D., 7th St., cor. John, Cincinnati, O.
1872. Owens, James B., M.D., Lebanon, O.
1868. Packard, Liberty D., M.D., 538 Broadway, South Boston, Mass.
1869. Packer, Edmund H., M.D., Lowell, Mass.
1869. Page, Moses F., M.D., Appleton, Wis.
1856. Palmer, Frederick N., M.D., 37 Pinckney St., Boston, Mass.
1869. Palmer, George B., M.D., East Hamilton, N. Y.
1875. Palmer, George H., M.D., St. Clair, Mich.
1870. Parker, George T., M.D., Newcastle, Pa.
1853. Parks, John M., M.D., Hamilton, O.
1870. Parsons, Ephraim, M.D., Kewanee, Ill.
1870. Patchen, T. J., M.D., Fond du Lac, Wis.
1873. Patchen, George H., M.D., Burlington, Iowa.
1867. Payne, Frederick W., M.D., 680 Tremont St., Boston, Mass.
1860. Payne, James H., M.D., 1262 Washington St., Boston, Mass.
1867. Pearsall, S. J., M.D., Saratoga Springs, N. Y.
1867. Pearson, Clement, M.D., 1331 G St., Washington, D. C.
1875. Pearce, Robert W., M.D., Louisville, Ky.
1868. Pease, Giles M., M.D., 10 Ellis St., San Francisco, Cal.
1874. Pease, Giles, M.D., Rockville, Conn.
1868. Peck, Edwin H., M.D., Cleveland, O.
1871. Peck, Oliver J., M.D., N. Chatham, N. Y.
1872. Peer, George W., M.D., Rochester, N. Y.
1870. Pennoyer, N. A., M.D., Kenosha, Wis.
1858. Perrine, M. L. R., M.D., 137 Montague St., Brooklyn, N. Y.
1873. Pettet, Jonathan, M.D., Cleveland, O.
1871. Pettingill, Sarah B., M.D., 300 N. Tenth St., Philada., Pa.
1872. Pettingill, Eliza F., M.D., 300 N. Tenth St., Philada., Pa.
1871. Pfeiffer, George S. F., M.D., Camden, N. J.
1871. Pfouts, John S., M.D., Wilkesbarre, Pa.
1867. Phillips, Albert William, M.D., Birmingham, Conn.

1871. Phillips, Edward H., M.D., West New Brighton, Staten Island, N. Y.
1873. Phillips, W. A., M.D., Cleveland, O.
1870. Piersons, A. Manly, M.D., 30 E. 127th St., New York.
1874. Plimpton, Clara C., M.D., 128 Lexington Av., New York.
1854. Pomeroy, Thomas F., M.D., 73 McCullough St., Baltimore, Md.
1871. Poppe, Otto B., M.D., Crown Point, Ind.
1867. Poulson, P. W., M.D., Council Bluffs, Iowa.
1871. Powell, H., M.D., 184 East Broadway, New York.
1867. Pratt, Leonard, M.D., Wheaton, Ill.
1859. Pratt, L. M., M.D., corner Columbia and Pearl Sts., Albany, N. Y.
1874. Pratt, William M., M.D., 278 East Broadway, N. Y.
1867. Pratt, E. H., M.D., Wheaton, Ill.
1866. Preston, Coates, M.D., Chester, Pa.
1871. Preston, Mahlon, M.D., Norristown, Pa.
1867. Price, Elias C., M.D., 110 N. Eutaw St., Baltimore, Md.
1873. Prindle, Clarence W., M.D., Grand Rapids, Mich.
1858. Pulsifer, N. G. H., M.D., Waterville, Me.
1873. Purdy, W. S., Dr., Corning, N. Y.
1872. Quick, Theodore, M.D., 155 E. 127th St., New York.
1854. Randel, Wm. H., M.D., 1 Clinton Square, Albany, N. Y.
1865. Rankin, John S., M.D., Pittsburg, Pa.
1869. Raue, Charles G., M.D., 121 N. 10th St., Philada., Pa.
1860. Reading, Edward, M.D., Hatboro, Pa.
1857. Reed, William A., M.D., 123 N. 11th St., Philadelphia.
1874. Reed, Maro McL., M.D., Jacksonville, Ill.
1870. Reinhold, H. E., M.D., Williamsport, Pa.
1874. Rembaugh, Alonzo C., M.D., Philadelphia, Pa.
1869. Reud, William R., M.D., Stamford, Conn.
1869. Reynolds, Herbert, M.D., Bridesburg, Pa.
1870. Reynolds, Wm. B., M.D., Newville, Pa.
1874. Rice, Wm. B., M.D., Niagara Falls, N. Y.
1869. Richards, George W., M.D., Orange, N. J.
1872. Richardson, B. M., M.D., 127 Noble St., Brooklyn, N. Y.
1875. Robertson, Geo A., M.D., Chelsea, Mich.
1873. Robertson, E. W., M.D., Cleveland, O.
1869. Robinson, Charles F., M.D., 83 Saratoga St., E. Boston, Mass.
1875. Robinson, John T., M.D., Warsaw, Ky.
1866. Robinson, S. A., M.D., Laporte, Ind.
1872. Robinson, Henry D., M.D., New Brunswick, N. J.
1872. Roseberry, Chas. J., M.D., Easton, Pa.
1866. Rousseau, L. M., M.D., 210 Penn Av., Pittsburg, Pa.

1875. Rowell, Chas. E., M.D., Lancaster, N. H.
1875. Rukenbrod, Walter E., M.D., Salem, O.
1875. Runnels, Moses T., M.D., Franklin, Ind.
1873. Runnels, O. S., M.D., Indianapolis, Ind.
1865. Rush, R. B., M.D., 120 Main St., Salem, O.
1869. Sage, William H., M.D., New Haven, Conn.
1860. Sanders, John C., M.D., Cleveland, O.
1859. Sanders, Orren S., M.D., 511 Columbus Av., Boston, Mass.
1867. Sanford, Charles E., M.D., Bridgeport, Conn.
1869. Sanger, Thaddeus E., M.D., Littleton, N. H.
1871. Sargent, Rufus, M.D., 1609 Mt. Vernon St., Philad'a.
1871. Sartain, Harriet J., M.D., 210 Franklin St., Philad'a.
1867. Sawin, Isaac W., M.D., Providence, R. I.
1869. Sawtelle, Geo. B., M.D., Malden, Mass.
1870. Savage, Jas. W., M.D., Wiscasset, Me.
1867. Scales, Edward P., M.D., Newton, Mass.
1859. Scales, Thomas S., M.D., Woburn, Mass.
1873. Schatz, W. F., M.D. Columbus, O.
1874. Schenck, Benjamin B., M.D., Plainville, N. Y.
1874. Scherzer, William, M.D., New York.
1873. Scheurer, E. M., M.D., Clearfield, Pa.
1875. Schley, James Montford, M.D., New York.
1873. Schmucker, Elhanan Z., M.D., Reading, Pa.
1873. Schmucker, Francis R., M.D., 103 5th Av. Extension, Pittsburg, Pa.
1868. Schneider, N., M.D., Cleveland, O.
1871. Scott, James L., M.D., Coatesville, Pa.
1872. Scott, Chester W., M.D., Lawrence, Mass.
1872. Scott, Emma, M.D., 51 W. 32d St., New York.
1867. Seeley, N. R., M.D., Elmira, N. Y.
1868. Seidlitz, George N., M.D., Keokuk, Iowa.
1869. Seip, C. P., M.D., Pittsburg, Pa.
1875. Selfridge, Jas. L., M.D., Oakland, Cal.
1867. Seymour, D. E., M.D., Calais, Me.
1874. Seymour, Abby J., M.D., Buffalo, N. Y.
1867. Shaffer, Levi, M.D., Kingston, N. Y.
1875. Shaw, Geo. R., M.D., Ripon, Wis.
1867. Shearer, Thomas, M.D., 97 N. Charles St., Baltimore, Md.
1866. Sheffield, H., M.D., 21 S. Vine St., Nashville, Tenn.
1870. Sheldon, J. W., M.D., Syracuse, N. Y.
1871. Shepherd, Jas. S., M.D., Petaluma, Cal.
1859. Sherman, John H., M.D., South Boston, Mass.
1875. Sherman, Lewis, M.D., Milwaukee, Wis.
1871. Shivers, Bowman H., M.D., Haddonfield, N. J.
1854. Sisson, Edward R., M.D., New Bedford, Mass.

1853. Skiles, F. W., M.D., 76 Clinton St., Brooklyn, N. Y.
1866. Smedley, Robert C., M.D., West Chester, Pa.
1869. Smith, Amos B., M.D., Geneva, N. Y.
1870. Smith, Franklin B., M.D., Owosso, Mich.
1860. Smith, Henry M., M.D., 107 Fourth Avenue, New York.
1869. Smith, J. Heber, M.D., Melrose, Mass.
1870. Smith, J. T. S., M.D., 107 Fourth Avenue, New York.
1869. Smith, St. Clair, M.D., 3 E. 33d St., New York.
1860. Smith, Thomas F., M.D., 62 E. 128th St., New York.
1871. Smith, T. Hart, M.D., 805 N. 10th St., Philadelphia, Pa.
1873. Smith, Chester, M.D., Portland, Mich.
1867. Sommer, G. J. M., M.D., 98 Second Av., New York.
1867. Sonnenschmidt, C. W., M.D., Washington, D. C.
1871. Southwick, Augustus B., M.D., Rome, N. Y.
1868. Southwick, D. E., M.D., Ogdensburg, N. Y.
1874. Sovereign, Baxter, M.D., Yorkshire, N. Y.
1869. Spalding, Henry E., M.D., Hingham, Mass.
1859. Sparhawk, George E. E., M.D., Gaysville, Vt.
1875. Spinney, Andrew B., M.D., Detroit, Mich.
1868. Squier, A. F., M.D., Newport, R. I.
1869. Stearns, George W., M.D., New Bedford, Mass.
1870. Stephenson, H. C., M.D., Lowell, Mich.?
1852. Stevenson, T. Collins, M.D., Carlisle, Pa.
1871. Stiles, James E., M.D., Lambertville, N. J.
1874. Stiles, Henry R., M.D., Middletown, N. Y.
1873. Stilson, E. H., M.D., Keokuk, Iowa.
1858. Stone, Henry E., M.D., Fairhaven, Conn.
1871. Stouffer, David R., M.D., Chambersburg, Pa.
1869. Stow, T. Dwight, M.D., Fall River, Mass.
1871. Streets, Jacob G., M.D., Bridgeton, N. J.
1869. Strong, O. G., M.D., Columbus, O.
1865. Sumner, Charles, M.D., 16 S. Clinton St., Rochester, N. Y.
1867. Swan, Samuel, M.D., 13 W. 38th St., New York.
1867. Swift, Solomon E., M.D., Colchester, Conn.
1874. Swift, Chas. E., M.D., Auburn, N. Y.
1869. Swits, Harmon, M.D., Schenectady, N. Y.
1853. Talbot, I. T., M.D., 31 Mt. Vernon St., Boston, Mass.
1874. Talcott, S. H., M.D., Waterville, N. Y.
1872. Talmage, John F., M.D., 155 Joralemon St., Brooklyn, N. Y.
1871. Tantum, Jos. R., M.D., Wilmington, Del.
1869. Taylor, Charles W., M.D., Newtonville, Mass.
1875. Taylor, Esther W., M.D., Freeport, Ill.
1875. Terry, Marshall O., M.D., Utica, N. Y.

1869. Thomas, Amos R., M.D., 937 Spruce St., Philadelphia.
1875. Thomas, Charles M., M.D., 937 Spruce St., Philadelphia.
1871. Thomas, Wm. W., M.D., Wilmington, Del.
1867. Thompson, John H., M.D., 36 E. 30th St., New York.
1867. Thompson, Virgil, M.D., 234 W. 11th St., New York.
1872. Tibbles, Geo. N., M.D., Jersey City, N. J.
1867. Tompkins, Silas B., M.D., Janesville, Iowa.
1860. Toothaker, C. E., M.D., 1717 Francis St., Philadelphia.
1866. Townsend, E. W., M.D., Greensburg, Pa.
1869. Trites, William Budd, M.D., 4323 Main St., Manayunk, Philadelphia.
1870. Trott, S. E., M.D., Wilmington, Ill.
1871. Tuller, Emory R., M.D., Vineland, N. J.
1875. Underwood, Helen J., M.D., Chicago, Ill.
1875. Valentine, Philo E., M.D., St. Louis, Mis.
1870. Van Norman, H. B., M.D., Cleveland, O.
1873. Van Norman, E. V., M.D., Springfield, O.
1868. Vastine, Charles, M.D., St. Louis, Mo.
1866. Verdi, Ciro S., M.D., New Brunswick, N. J.
1858. Verdi, Tullio S., M.D., 268 G St., Washington, D. C.
1874. Vernon, Elias, M.D., Hamilton, Canada.
1871. Vincent, Frank L., M.D., Troy, N. Y.
1871. Von Tagen, Charles H., M.D., Cleveland, O.
1874. Wait, Phœbe J., M.D., New York.
1869. Walker, Mahlon M., M.D., 12 W. Walnut Lane, Germantown, Philadelphia.
1865. Wallace, M. W., M.D., Alleghany, Pa.
1872. Walter, Ziba D., M.D., Marietta, O.
1874. Walton, Chas. E., M.D.; Cincinnati, O.
1856. Ward, John A., M.D., 39 E. 19th St., New York.
1872. Ward, Jas. H., M.D., Brooklyn, N. Y.
1874. Ward, A. F., M.D., Jamestown, N. Y.
1869. Ware, William G., M.D., East Dedham, Mass.
1872. Warren, John K., M.D., Palmer, Mass.
1873. Warren, H. Anna, M.D., Emporia, Kan.
1873. Waters, M. H., M.D., Terre Haute, Ind.
1854. Watson, William H., M.D., 270 Genesee St., Utica, N. Y.
1874. Watson, Henry B., M.D., Glen Cove, L. I.
1865. Webster, W., M.D., 127 Main St., Dayton, O.
1869. Weeks, Lorrain T., M.D., Laconia, N. H.
1871. Wentworth, Walter H., M.D., Pittsfield, Mass.
1873. Wenz, James, M.D., Buffalo, N. Y.
1866. Werder, Max J., M.D., 118 Geary St., San Francisco, Cal.
1859. Wesselhœft, Conrad, M.D., 302 Columbus Av., Boston, Mass.

1867. Wesselhœft, Walter, M.D., Cambridge, Mass.
1859. Wesselhœft, Wm. P., M.D., 52 Boylston St., Boston, Mass.
1869. West, Benjamin H., M.D., Neponset, Mass.
1858. West, Edwin, M.D., 42 W. Washington Pl., New York.
1873. West, James A., M.D., Geneseo, N. Y.
1866. Wetmore, John M., M.D., 278 Fourth Av., N. Y.
1874. Wheaton, Jas. L., M.D., Pawtucket, R. I.
1870. White, C. C., M.D., Columbus, O.
1867. White, J. Ralsey, M.D., 228 E. 124th St., New York.
1860. White, Theodore C., M.D., 16 S. Clinton St., Rochester, N. Y.
1867. White, W. Hanford, M.D., 1 W. 34th St., New York.
1873. Whitfield, Isaiah J., M.D., Grand Rapids, Mich.
1869. Whiting, Lewis, M.D., Danvers, Mass.
1868. Whiting, S. C., M.D., Vincennes, Ind.
1869. Whittier, Daniel B., M.D., Fitchburg, Mass.
1867. Whittle, James P., M.D., Weare, N. H.
1859. Wild, Edward A., M.D., Austin, Nevada.
1855. Wilder, Louis de V., M.D., Rochester, New York.
1853. Wilkinson, Ross M., M.D., 97 E. State St., Trenton, N. J.
1867. Willard, L. H., M.D., Alleghany, Pa.
1869. Willis, L. Murray, M.D., E. Charlestown, Mass.
1871. Williams, Thomas C., M.D., 567 N. 5th St., Philadelphia.
1872. Williamson, Matthew S., M.D., 29 N. 11th St., Philada.
1859. Wilson, G. H., M.D., West Meriden, Conn.
1865. Wilson, T. P., M.D., Cleveland, O.
1873. Wilson, M. T., M.D., San Francisco, Cal.
1875. Wilson, William W., M.D., Rockford, Me.
1875. Winans, Jonathan Edwards, M.D., Newark, N. J.
1872. Winslow, Caroline B., M.D., 1 Grant Place, Washington, D. C.
1854. Wood, J. B., M.D., West Chester, Pa.
1860. Wood, O. S., M.D., Omaha, Neb.
1859. Woodbury, J. H., M.D., Boylston St., Boston, Mass.
1870. Woodbury, William H., M.D., 311 W. Washington St., Chicago, Ill.
1857. Woodruff, Francis, M.D., Detroit, Mich.
1868. Woods, J. U., M.D., Holyoke, Mass.
1873. Woods, Mary A. B., M.D., Erie, Pa.
1868. Woodvine, Denton G., M.D., 739 Tremont St., Boston, Mass.
1870. Woodward, Alfred W., M.D., 140 Warren Av., Chicago, Ill.
1869. Woodward, A. M., M.D., 50 W. 29th St., New York.
1873. Woodyatt, W. H., M.D., 215 S. Sangamon St., Chicago Ill.

1870. Worcester, Samuel H., M.D., Salem, Mass.
1872. Worcester, Samuel, M.D., Burlington, Vt.
1870. Worley, P. H., M.D., Davenport, Ohio.
1870. Worthington, A. F., M.D., Cincinnati, O.
1869. Wright, A. R., M.D., 162 Pearl St., Buffalo, N. Y.
1867. Wright, Wm., M.D., 96 5th St., Brooklyn, E. D., N. Y.
1874. Wright, H. Amelia, M.D., New York.
1874. Yeomans, Caroline J., M.D., New York.
1875. Yeomans, Clara, M.D., Clinton, Iowa.
1858. Youlin, John J., M.D., 130 Grove St., Jersey City, N. J.

Corresponding Members.

1873. Dr. Tommaso Cigliano, Naples, Italy.
1873. Dr. Sambhul Mukhopàdhyàya, Wellington Square, Calcutta, India.

Honorary Members.

1875. Dr. Bernardino Dadea, Turin, Italy.

SECTION II.

REPORT

OF THE

BUREAU OF MATERIA MEDICA, PHARMACY,

AND

PROVINGS,

CARROLL DUNHAM, M.D., ... Irvington-on-Hudson, N. Y.
CONRAD WESSELHŒFT, M.D., ... Boston.
T. F. ALLEN, M.D., ... New York.
E. M. HALE, M.D., ... Chicago.
WILLIAM E. PAYNE, M.D., ... Bath, Me.
J. P. DAKE, M.D., ... Nashville, Tenn.
WALLACE McGEORGE, M.D., ... Woodbury, N. J.
J. HEBER SMITH, M.D., ... Melrose, Mass.
H. H. BAXTER, M.D., ... Cleveland, O.

TO THE

TWENTY-EIGHTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME II. NUMBER 1.

SECTION V.

REPORT

ON

BUREAU OF MATERIA MEDICA, PHARMACY,

AND

PHARMACIES.

CARROLL DUNHAM, M.D., ... Bridgeport, Conn.
OSCAR WOOLLEY, M.D., ... Ohio.
T. F. ALLEN, M.D., ... New York.
E. M. HALE, M.D., ... Illinois.
WILLIAM E. PAYNE, M.D., ... New York.
J. P. DAKE, M.D., ... Nashville, Tenn.
WALLACE MACFARLAN, M.D., ... Philadelphia, Pa.
J. HERRON SMITH, M.D., ... Keene, N.H.
E. E. SAWYER, M.D., ... Cincinnati, O.

TO THE

TWENTY-EIGHTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME II. NUMBER 1.

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I.

GENERAL REPORT

OF THE

BUREAU OF MATERIA MEDICA, PHARMACY, AND PROVINGS.

IMMEDIATELY on its appointment, this bureau selected as the subjects of its labors: 1. The reproving of "Sepia." 2. The subject of "Primary and Secondary Symptoms of Drugs."

The professors of Materia Medica in the various homœopathic medical colleges were requested by the chairman of the bureau to organize classes of provers among the students, and, if it should seem to them proper, to secure the assistance of the professors of physiology, chemistry, microscopy, and gynæcology, in order that the provers might be under competent supervision, and might have the assistance of experts in their observations and reports.

The proving herewith presented comprises the reports of

Two provers, students in the New York Homœopathic Medical College for Women, whose faithfulness and accuracy is vouched for by Professor A. K. Hills, M.D.

One prover, vouched for by Emma Scott, M.D., of New York, who certifies to the healthiness of prover before taking the Sepia, and to the organic changes which followed it.

Two provers, vouched for by Professor William Owens, of Pulte Medical College, Cincinnati.

Six provers, whose reports reached the chairman through Professor E. A. Farrington, M.D., of Hahnemann Medical College of Philadelphia.

Eight provers, vouched for by Professor C. Wesselhœft, M.D., of Boston University Medical School.

Six provers, whose experiments were superintended and transmitted by Professor T. F. Allen, M.D., of the New York Homœopathic Medical College.

Five provers, a second series, presented by Professor C. Wesselhœft, M.D.

In all thirty provers, of whom ten were women.

Attached to the proving of Sepia is a brief paper containing practical "Observations on Sepia," by Mercy B. Jackson, M.D., of Boston, Mass.

No reports have been received from the colleges of Chicago and Cleveland.

The subject of "Primary and Secondary Symptoms of Drugs" was divided into three sections:

Section a. "The Definition and Discrimination of Primary and Secondary Symptoms of Drugs" was assigned to J. P. Dake, M.D.; H. H. Baxter, M.D.; and T. F. Allen, M.D.

Drs. Dake and Allen accepted the assignment and present reports.

Section b. "Primary and Secondary Symptoms of Drugs as Guides in the Selection of Remedies in Practice" was assigned to C. Wesselhœft, M.D.; J. Heber Smith, M.D.; and W. McGeorge, M.D.

Drs. Wesselhœft and McGeorge present reports.

Section c. "Primary and Secondary Symptoms of Drugs as Guides in Determining the Dose" was assigned to E. M. Hale, M.D.; W. E. Payne, M.D.; and Carroll Dunham, M.D.

Drs. Hale and Dunham present reports.

Respectfully submitted.

CARROLL DUNHAM, M.D.,
Chairman.

II.

PROVINGS OF SEPIA.

1. PROVING by Miss Ella F. S . . . . ., Bridgeton, N. J. (Presented by Professor A. K. Hills, M.D., New York. Professor Hills vouches for the integrity of the prover and the honesty and faithfulness of the report.)

Friday, Nov. 20th, 1874. Took a powder of Sepia, 200th dil., this morning before breakfast. During the day, increased frequency of micturition. 6 P.M., pulse 92; 9 P.M., 87.

Nov. 21st. Third powder this morning. 9 A.M., pulse 88. I felt well until 9 A.M., when suddenly I felt sick, with distress in the pelvis, which increased during the forenoon. Head tired; I could hardly lift it from the pillow; could hardly do anything but wonder what is the matter with me. No better after dinner; a strange feeling in my head, as if just on the point of falling asleep.

I waked from a nap at 4 P.M. with the pelvic distress aggravated, and feeling somewhat gloomy, but battling against it. After supper, at 6 P.M., all my bad feelings left me. At 9 P.M., the bearing-down feeling in the abdomen returned, but the head felt clear. Pulse 82.

Nov. 22d, Sunday. Wakened 6 A.M. Took fourth powder before breakfast. 9 A.M., pulse 80. The dragging and pressing sensation in the abdomen has returned; pressure as though the contents would issue through the genital organs. Pressing outwards in the hypogastric region, as if the bladder would fall out over the os pubis; partially relieved by hard pressure. I took the fifth powder this evening on retiring.

Nov. 23d, Monday. The pelvic distress was noticeable through the whole night, at waking intervals, and relief only momentary

by lying on either side with the legs flexed on the thighs and the thighs on the abdomen. I waked this morning without the distress, but it returned on stirring, and increased before breakfast. Distress in the hypogastric region through the day, as of overdistended bladder, that could not be endured; worse by continually sitting or lying; better on walking about; it disappeared on eating supper; better when walking in the open air. No distress anywhere but in the pelvis. Pulse, at 1 P.M., 83. Hands generally cold, but moist with perspiration. Sudden and uncontrollable thirst at 9 P.M., but water tastes insipid unless very cold.

Nov. 24th, Tuesday, 9 A.M. Pulse 96. Lancinating pains in the uterus, shooting upwards; pressure downwards, as if the uterus would issue through the vulva. Noon, pulse 83; temperature 99⅝°. Complete cessation of distress in uterus from supper to 9 P.M., when it returned; fulness in the bladder, urging continually to micturition.

Nov. 25th, Wednesday. Temperature, at noon, 99⅝°; pulse, 9 P.M., 78. A very unusual thirst appeared at 9 P.M.; I *must* have water.

Nov. 26th, Thursday. I felt worse after sleep this afternoon; great vascular excitement, and felt sore and lame all over; did not wish to move; shooting pain from the lumbar region to the left lung; pain in the lumbar region; a jerking motion in the left biceps of the upper extremity, lasting an hour, in the evening; 9 P.M., pulse 80.

Nov. 28th. Feel well this morning, except a load or weight in the lower part of the abdomen. 9 A.M., I feel suddenly ill, with the bearing-down feeling greatly increased in the abdomen; aching in the small of the back; head tired and full, with a feeling as if I were just on the point of falling asleep; a weak feeling all over; dinner gives no relief. 4 P.M., the head and pelvic symptoms are aggravated after sleep; sick all day in my room, as on 21st and 22d instant; micturition almost every hour during the day; the distress was all relieved on eating supper, and returned at 9 P.M., with a peculiar thirst which lasted all the evening; water tastes natural if cold.

Nov. 29th, Sunday. Little distress in forenoon, but felt quite

weak. 5 P.M., head hot with feeling of fulness. Throbbing through chest and abdomen as if the heart occupied the whole body. Marked thirst at 9 P.M.

Nov. 30th. Mammæ sore, and tender to the touch. Stool, which has been free and regular, is to-day, large, hard and difficult.

Dec. 1st. Mammæ sore and tender; even moving, turning, or stepping aggravates the soreness. Dark rings around the eyes. Much itching on the head, especially in the afternoon. Appetite good.

Dec. 2d. Wakened at 5 A.M., and slept again, after which I was dull, languid, and not disposed to move. I notice through this day that I cannot recall as quickly as usual facts which I am certain I know.

Dec. 4th. Loose, yellow, watery stool at 8 A.M., attended with pain and some flatulence. Great distress in the stomach; it is sensitive to the pressure of the clothes, and there is an aching and throbbing, relieved by slight eructations. Dragging feeling in the eyes. In the afternoon, the distress in stomach is worse; it is sore and sensitive as a boil; even walking is painful from the jarring. This almost entirely ceased after supper. Some flatulence in evening. Great aching between shoulders and under the left scapula, extending into the left lung, worse on expiration. Pulse, 8 P.M., 86.

Dec. 5th, 9 A.M. Very sleepy, and the pelvic distress and bearing-down have returned; they last all day, with dull feeling in the head and desire to sit or lie still with eyes closed. Amelioration after supper. I was sick in my room from 9 A.M. to 6 P.M. Aching in the small of the back, and thirst at and after 9 P.M.

Dec. 6th. Dreams frightful, of murder, last night. One sharp darting pain in the right ovarian region.

Dec. 7th. Restless all last night, tossing and turning. Waked 6 A.M. feeling well, but, on moving, had pain in abdomen, with sudden urging to stool, which was yellow, thin, and scanty, with much tenesmus; the catamenia appeared at the same time, followed by a bearing-down sensation. Pain in the right ovarian region as of a thread running downward to the uterus and drawn

too tightly. Feeling as if the bladder were full and its contents would fall out over the pubes, with constant desire to press them back. This feeling of distension of the bladder is quite different from the pressure downwards, as if everything would be pressed through the vulva.

Occasional sharp shooting pains in the eyeballs during the day, also in the left lung on expiration. Aching in the sacrum in the evening, relieved by pressure. Some flatulence. Absence of thirst at 9 P.M. A few sharp flashing uterine pains. I accidentally discovered this evening a sore spot in the abdominal walls, just to the right of the median line and three fingers' breadth below the umbilicus. Sense of smell more acute than usual. I am not drowsy this time, as I usually am during the menses.

Dec. 8th. Waked early, feeling well and full of energy. Have not the bad taste in the morning which is customary during the menses. The sore spot in the abdominal wall is tender to pressure and from movement of muscles in walking. The right ear ached after midnight, after walking in the wind. No pain, but weight in abdomen. No vesical distress as yesterday. Eyes feel as if pulled downwards. At noon, I notice soreness in location of a former congestion of liver. Menses as usual in quantity and quality, with feeling of crowding and pressing downwards. Throat dry; worse evening. A few sharp shooting pains in the vaginal orifice. 10 P.M., pulse 80. Pain in right ovary; thirst. The dull ovarian pain is sharper on inspiration.

Dec. 9th. Slept well; no dreams. Earache after midnight, with cold sensation all over the head, relieved by warmth and sleep. Awoke at 5.30 A.M., slept again, and wakened weary. Have a cold, with few but sudden coughing spells. Expectoration full and easy *only* in the morning after breakfast.

Puffiness beneath the eyes. Heat and dryness of the margins of the lids. Nose obstructed at night, especially right nostril. Tongue clean. Throat red and dry. Right shoulder lame and stiff. The sore spot in the liver is felt on turning or reaching. Sensation of coldness on the head, especially at night. Pain in right ovary worse in afternoon. Gnawing and weakness in the stomach, which ceased at supper.

8 P.M. Sleepy, with chilly sensations in the back, and languid, dull feeling. Sensation as if the heart filled all the cavities of the body, with labored, muffled beating. Unsuccessful urging to stool, with load and pressure in the rectum. The menses ceased this evening.

I sweat very easily while walking in the open air, even against cold winds. Thirst at 9 P.M.

Dec. 10*th*. Micturition more frequent than yesterday, not painful, but with a constant uneasiness, as of great fulness in the bladder. Noon very hungry; sore spot in the abdomen noticed on pressure or sudden turning. Soreness in the liver when reaching, turning, or moving suddenly. Menses returned again this forenoon and lasted till afternoon. I cannot, with my usual quickness, recall well-known facts. Thirst at 9 P.M., pulse 74, and great urging to stool, as at the same hour last evening. 10 P.M., a chilly sensation in back and right shoulder running downwards. Chilliness in the back if lying on either side, removed by lying on the back. Took another powder of Sepia to-night.

Dec. 11*th*. Waked 4.30 A.M. Slept and waked again 6 A.M.; averse to motion, with desire to stretch, and very sleepy. When awake in the night, great distress in the stomach (gnawing aching in pit of stomach), with sensitiveness; could not bear weight of clothes. Downward pressure in abdomen. The only way in which I could fall asleep again was by assuming the knee-elbow position for a time, causing slight eructations, relief, and sleep. In the morning, sore spot in the wall of the abdomen. Stool at 8 A.M.

Micturition nearly every hour in the afternoon. Dulness all day and aversion to motion. Dull pain in the right ovary, with occasional sharp shooting pains. The sore spot in the liver aches on turning and moving.

5 P.M. Fulness of the head greatly aggravated in lying; distress as of a pressing outward in the forehead, and a feeling of sinking in in the vertex. Sensation as if the brain moved in waves, with a sensation of hunger. Throbbing of the carotids. Throat dry and hot, with paroxysms of pain attended by lachrymation. All the symptoms are greatly aggravated in lying; I

must get up and walk about slowly. Relieved after supper in all respects.

8 P.M. The throat symptoms have returned worse than this afternoon; a raw feeling in the posterior nares, with dryness and rigidity in the throat below. Throat so dry as to seem like a board; in swallowing it seemed as if the opposing parts would not blend, they were so dry and rigid. Frequent paroxysms of pain in throat, with lachrymation. Fauces red. Tongue red and clean; the papillæ elevated; it feels as if burnt. Slight but shifting toothache. Unsuccessful urging to stool. Thirst as before, at 9 P.M., but more marked.

Dec. 12*th*. Slept well. Woke 3 A.M. Could not sleep again for an hour or two; at last went to sleep lying on face.

9 A.M. Lassitude, great drowsiness and return of throat symptoms. Throat worse after sleeping, with paroxysms of pain attended by lachrymation, relieved, for a time, by detaching mucus, which had to be swallowed. Steady pain in the right ovarian region and backache.

In the afternoon, pressure in the uterus as if everything would issue through the vulva. Sensation as if the vulva were enlarged. Sudden sharp pain at the vaginal orifice. Throat bright-red; tongue clean and red, with desire for acids. Profuse perspiration on walking, especially in the bends of the joints. After sleeping, afternoon, no disposition to move or talk, but to sit quietly and wonder what is the matter.

Fulness in temples and forehead, and throbbing of carotids. Pressing in the vertex. Puffiness beneath the eyes. Sensation as if weights were attached to the posterior parts of the eyeballs. Cannot bear reflected light from bright objects. Increased acuteness of smell. Plugs in the nose. 9 P.M., drowsiness; pulse 78; feeling of dryness and rigidity in the throat, and of rawness in the posterior nares. Pain in the right side between scapula and vertebræ. Steady pain in right ovary. Supper relieved all the symptoms except dryness of throat. Sick all day until supper.

Dec. 13*th*. Pain in right ovary, soreness on pressure after sleep in afternoon, felt too badly to move. Thirst 9 P.M.

Skin seems tender; the least scratch heals slowly.

Dec. 14*th*. Waked 5.30 A.M. in profuse sweat; felt weak and

tired about breakfast time. Profuse sweat on walking, even against cold winds. Thirst 8 P.M. Pulse, 10 P.M., 78.

Dec. 16*th.* Annoyed by reflections from bright objects. It seems that I cannot spring to an answer as quickly as usual, but must slowly recall ideas by association. Thirst 9 P.M.

Urine normal; amber-colored; slightly turbid; sp. gr. 1028; no sugar; no albumen; no bile pigment; slight trace of bile acid.

Urine during proving. Amber-colored; slightly turbid; sp. gr. 1030; strongly acid; bile pigment; marked proof of bile acid in large quantity.

Dec. 17*th.* Waked at 3 A.M.; a rush of ideas prevented sleep for an hour, when I broke out in profuse sweats, in drops, especially in the bend of the elbow and knee in right side; followed by quiet sleep. Through the day occasional bearing-down sensation in the abdomen. Sudden irresistible thirst at 9 P.M.

Dec. 18*th.* Unnatural thirst 9 P.M.

Dec. 19*th.* Fulness in head. Pressing down in abdomen. Increased frequency of micturition; fulness in the bladder, as if it would fall over the os pubis. Head symptoms much worse after sleeping, afternoon. Fulness in the temple, with no desire to talk or move, only to sit and wonder what is the matter. Hands cold, but moist almost all the time. Thirst at 9 P.M. 10 P.M., pulse 66.

Dec. 20*th.* Feel well. Pulse, noon, 77; 9 P.M. 76.

No more symptoms observed—until about January 2d or 3d, 1875, I took a dose of *Nux vom.*, and noticed the return of Sepia symptoms, but did not think to record them.

Jan. 15*th*, 1875. Had occasion last evening to take a dose of Nux vom.[6], when to-day I notice a recurrence of Sepia symptoms such as: The pressure down in the abdomen as if everything would issue through the vulva. Fulness in the head. Micturition more frequent than usual. In the evening relief of all symptoms from eating supper. The pelvic distress returned at 9 P.M., but not so severe. Thirst at 9 P.M. quite remarkable in its sudden appearance and intensity.

Jan. 16*th.* Head seems full. Ideas come very slowly. Micturition frequent. Sick all the afternoon, with distress in pelvis

and bearing-down sensation. Feeling of overdistension in the bladder. All relieved at supper. Thirst 9 P.M.

Jan. 19*th.* Greatly annoyed by bright objects. I recall known facts by association.

Jan. 21*st.* Greatly annoyed by my mental slowness.

Jan. 22*d.* Catamenia appeared early this morning, giving an interval of only eighteen days instead of the customary twenty-six days.

Jan. 29*th.* My memory seems as good as usual, but the mental slowness in recalling facts is more marked than ever. Thirst 9 P.M.

Nearly the same symptoms were repeated over and over at intervals until March 5th, when I had occasion to take Nux vom. again, when the symptoms increased again and lasted till April 9th, 1875.

PROVING OF SEPIA.

By M. Elizabeth K . . . . ., New York Woman's Medical College and Hospital; made in the winter of 1874–75. Presented through Prof. A. K. Hills, M.D.

Nov. 10*th*, 1874, 10 P.M. Took one powder.

Nov. 11*th.* Woke at 4.30 A.M., without apparent cause, and remained awake.

5 A.M. Urinated quite freely a very large quantity—feeling very well.

8 A.M. *Nov.* 11*th.* Took one powder.

9 A.M. Received news of the slight illness of a friend which caused great mental depression. (At another time it would not have made the slightest impression.) This condition grew on me until I became so nervous that I felt that, unless I held on to something, I should scream.

11 A.M. When spoken to every idea flies from me, but returns clearly enough if another person is addressed (even the same question), and I could follow the idea clearly.

12 M. Feel much better.

3 P.M. Feel extremely nervous. My hands and feet are cold and clammy (I can't remember ever having cold and clammy extremities); nose cold and pinched; the rest of the body feels

warm. All the time, I had violent palpitation of the heart, as though it would force its way through the thoracic wall. This was relieved by walking a long distance, and walking very fast.

5 P.M. Call to stool; I felt as though I had lost all power of expulsion. Only small hard lumps passed, which did not give relief. After stool severe stitching pain in the transverse colon, beginning in the splenic flexure, and passing to the hepatic flexure, and there passing off slowly; much aggravated by walking, but relieved by sitting down.

10 P.M. Tenesmus in the rectum, with dull pain in the lumbar region. Passed a great deal of flatus all day, which did not relieve. Pulse 70; urine normal, but copious.

Nov. 12th, 6 A.M. Passed a very restless night, and feel very tired this morning. Tongue sticky and coated, a dirty-yellow; a very putrid taste, which causes nausea.

7.30 A.M. Severe pelvic pain, commencing in the sacrum, passing forward and down to the right knee. The only relief I found was by pressing against something hard, which relieved all the pain; but by crossing my limbs the pelvic pain was relieved, but the pain in the knee was much aggravated.

10 A.M. Dull headache through both temples and forehead, with drooping of the eyelids; I feel as though I had not sense enough left to lift them. I feel very low-spirited, and don't care what becomes of me.

4.30 P.M. While walking in the cold wind I experienced dull pain through both ears; the pain seemed to come from within outward (the first time I ever had earache).

The mammæ have felt sore, like boils, if touched, all day. Passed very little urine to-day, but it was normal. Have passed a great deal of flatus from the vagina and rectum without relief. Abdomen very much distended after the least bit of food; felt some relief from loosening clothes, but the distension soon returned, causing more distress than before, as it seemed to give the abdomen more room to expand. Black spots before my eyes all day, passing in all directions. Pulse 85.

Nov. 13th. Disturbed sleep; do not feel rested. Pulse 88. Am very feverish; eyes hot and dry; tingling sensation in the left side of the nose; a strong inclination to sneeze, but *I cannot*.

I feel very cross; and only lack a reasonable cause to vent my ill-humor.

10 A.M. All these symptoms are relieved, but I have a return of palpitation of the heart.

3 P.M. Very nervous; nose cold and pinched.

5 P.M. Walking in the wind caused the ears to ache; the pain is dull and dragging, passing forward into the parotid gland, and backward into the mastoid process of the temporal bone; relieved by the warmth of the room. The left side of the tongue is covered with blisters. The left submaxillary gland and tonsil are very much swollen.

8 P.M. Another attack of palpitation of the heart. I am very feverish. Considerable pain in the right knee. Urine normal. Pulse 86.

Nov. 14*th*, 7 A.M. Sleep very much disturbed by laborious dreams. I feel very tired; am very feverish.

10 A.M. Tried to study, but became nervous and confused; could not keep my mind on the subject. Am still very feverish. Throat and tongue much worse than yesterday, and I feel much annoyed by those around me.

4 P.M. Severe stitching pain through the left ovary. Very feverish without thirst. Abdomen tympanitic.

Nov. 15*th*, 7 A.M. Feel very tired; have had very tiresome dreams. Stitches through the bladder, a little while before urinating. Urine had strong odor, but no sediment.

3.30 P.M. Feel very well; began to write a letter; ideas came quite naturally; after finishing the letter, on reading it over, I found everything wrong; I had used wrong words and wrong expressions, and so I gave it up in disgust.

4.30 P.M. Stitching pain through the left ovary and acetabulum; I can scarcely bear the pain.

7 P.M. Uterine pains very severe. The uterus feels as if clutched and then suddenly released, causing nausea. The left side of the tongue and throat and left nostril covered with small vesicles.

10 P.M. Menses began to flow one week too soon. No pain.

Nov. 16*th*. Took third powder.

7 A.M. Had a very restless night, full of dreams; awaking often

in fright. Have severe pain in uterus and left ovary. Menses dark, scant, and fetid. I feel very much depressed.

10 A.M. I feel like quarrelling with everybody. I became very much excited about a mere trifle, and said some very sharp things (feeling ashamed of it at the same time).

5 P.M. Earache from being in the open air; was relieved when entering a warm room.

10 P.M. Abdomen very much distended since taking my dinner at 6 P.M.

Nov. 17*th.* Slept very well.

7 A.M. Throat very sore, and I feel very cross and nervous.

10 A.M. Pains in the uterus very severe; pains pass down into the vagina.

10 P.M. Very feverish; no thirst.

Nov. 18*th*, 5 P.M. Earache when walking out of doors; relieved in the house.

Nov. 19*th.* Slept well during the night.

7 A.M. Am very irritable, and don't want to talk or be talked to.

9.30 A.M. Cannot collect my thoughts, and am unable to answer the simplest question, which made me feel very unhappy, and I indulged in a good cry, and felt better afterwards. Stitching pains through the left parotid gland.

11 A.M. During lecture, my eyes felt as if they would draw within themselves, and the lecturer seemed to be receding from my vision very slowly, and seemed to be a great distance from me. I tried to dispel it by rubbing my eyes, but that had no effect; it ended in nausea.

6 P.M. Urging to stool, but passed very little; am not constipated, but seem to have lost power.

Nov. 20*th*, 11 A.M. Same condition of the eyes as on the previous day. It makes me very nervous. Sharp stitching pain passing up the vagina into the body of the uterus, somewhat relieved when bending double. The flow has ceased and there is a great dryness of the vulva and vagina, causing a very disagreeable sensation when walking.

Nov. 21*st.* (Have been out all night attending an obstetric case.) Breakfasted at 7.30 A.M. and went to sleep.

11.30 A.M. Awoke feeling very hungry; could not go to sleep again because of the gnawing hunger. Eyes hot and dry; I feel sick all over.

Nov. 22*d.* Slept very well.

8 A.M. Beginning to feel tired and listless. Head feels full and hot, eyes congested and dry. Tongue feels too large and as if scalded.

Nov. 23*d.* Feel very well, with the exception of bloated abdomen after eating the least bit of food; discharge of flatus does not relieve it.

Nov. 24*th.* Symptoms the same as on the previous day.

Nov. 25*th.* Same as the two preceding days.

Nov. 26*th.* Left side of throat and tongue and corner of mouth covered with vesicles. Abdomen not so much swollen.

Nov. 27*th.* Felt pretty well.

Nov. 28*th.* Did not notice my symptoms. (Attending an obstetric case.)

Nov. 30*th.* Feel very sick. Have a heavy cold—never had such before. Lungs very sore; harsh distressing cough, worse on going from cold air to warm, and *vice versâ.*

Dec. 4*th.* Took my fourth powder at 7 A.M.

Dec. 5*th,* 10 P.M. Have felt very well all day.

Dec. 6*th,* 10 P.M. Have felt very languid all day.

Dec. 7*th,* 7 A.M. Uneasy sensation in stomach—cannot describe sensation. Left side of tongue and mouth covered with vesicles, causing a stinging pain. Tongue coated yellow.

Dec. 8*th,* 7 A.M. Tongue clean; vesicles have disappeared; but the left tonsil is very much swollen and covered with pustules.

Dec. 9*th,* 7 P.M. Have felt very well to-day.

Dec. 10*th,* 7 P.M. My feet have been very tender all day; can hardly bear my stockings to touch my feet. After walking awhile they feel better. Bowels moved three times to-day.

Dec. 11*th,* 7 P.M. Corns on toes very sore and toes very much inflamed and sensitive to touch. Otherwise feel well. Natural stool to-day.

Dec. 12*th.* Same as yesterday. No stool.

Dec. 13*th,* 7 A.M. Shooting pain beginning in the cervix and

passing up to the fundus uteri and thence to the right ovary. Pain is so severe that it causes nausea.

7 P.M. Have been very irritable to-day. My memory is so poor I cannot remember the least thing, and it makes me feel very miserable.

Dec. 14*th.* Symptoms the same as yesterday, with the addition of dull pain in the sacrum.

Dec. 15*th*, 11 A.M. Chilly sensation, with nausea, which was followed by severe palpitation and twitching of both orbiculares palpebrarum; which was relieved by going out into the air.

Dec. 16*th.* The same symptoms, but less severe.

Dec. 17*th*, 10 P.M. Menses began to flow; dark clotted blood. Had severe uterine cramps all night, with only short intervals of relief; had considerable nausea. Bowels moved twice.

Dec. 18*th*, 10 P.M. Menses very scant all day. Uterine cramps when moving about, relieved when lying down.

Dec. 19*th.* Symptoms as on the 18th.

Dec. 20*th.* Menses very scanty and membranous, and very painful.

Dec. 21*st*, 10 P.M. Better, but not entirely relieved.

Dec. 23*d.* Feel very well.

Dec. 24*th*, 6 A.M. Painful urging to stool, which was hard and in lumps, and considerable bleeding from the rectum after stool.

7 P.M. Bowels moved freely and without pain.

10 P.M. Bowels moved quite freely.

Dec. 25*th*, 7 P.M. Feel very well. One stool.

Dec. 26*th.* Corns very painful.

Dec. 27*th.* Same as on 26th.

Dec. 28*th.* Throat sore and swollen; trapezius muscles very sore; can scarcely turn my head, and my neck is very sensitive to touch.

Dec. 29*th to* 31*st.* Throat and muscles very sore.

Dec. 31*st.* Two stools.

Jan. 1*st*, 1875. Symptoms of last two days somewhat ameliorated; one stool; feel much depressed.

Jan. 2*d.* Feel better mentally.

Jan. 3*d.* Much better.

Jan. 4th, 2 P.M. Eyes feel like balls of fire, especially the left, which is much injected.

Jan. 5th, 7 A.M. I noticed pustules on the conjunctivæ of the left eye; no pain, but I noticed a mist gathering before my eyes, and in this mist seemed to float black objects looking like tadpoles, with their heads pointing to the centre, and their tails radiating.

11 A.M. Much better.

2 P.M. Much worse than this morning; the mist causes nausea.

Jan. 6th, 7 A.M. Same as yesterday morning.

11 A.M. Same as yesterday.

2 P.M. Aggravated as yesterday at this hour, but more painful.

Jan. 7th. Eyes better, but tongue and throat covered with pustules.

Jan. 8th. Eyes all right, but I find pustules in the right groin and between coccyx and anus; they feel hard like shot.

Jan. 9th. Pustules in groin very painful; I find quite a number along the posterior border and inferior angle of the left scapula; bowels moved twice to-day, at 6.30 A.M. and at 8 A.M.

Jan. 10th. Pustules forming on the crista ilii from the spine to the middle of each bone; one stool 7 P.M.

Jan. 11th. Pustules very painful, which makes me irritable.

Jan. 12th. Pustules indistinct on my body; my throat and eyes are again affected.

Jan. 13th. Better in every way.

Jan. 14th to *21st*. Feel very well.

Jan. 18th. Three stools.

Jan. 22d, 7 A.M. Severe cramps in the uterine region; palpitation; cold feet and hands.

11 A.M. Was obliged to leave college and go home, the uterine cramps were so severe.

10 P.M. Menses made their appearance, but the pain continued till morning.

Jan. 23d, 8 A.M. Feel somewhat better; stool, which relieved.

2 P.M. Another attack of palpitation; am very nervous.

10 P.M. Feel easy and sleepy.

Jan. 24th. Menses very scanty and pale, and very acrid; no pain.

Jan. 25th to 31st. Feel very well.

Jan. 30th. Two stools.

Feb. 6th. One stool; I feel very stupid.

Feb. 13th. Stool.

Feb. 20th. Stool.

Feb. 28th. Have had no symptoms until to day, when, feeling very tired, I took a dose of Nux vomica; after which, I found all my symptoms returning, pustules on the conjunctiva, throat, and tongue, also the loss of memory.

March 1st. Much better.

March 2d. Entirely relieved.

PROVING OF SEPIA, 200TH DIL.

Furnished, through Professor T. F. Allen, M.D., by Emma Scott, M.D., New York.

Name of prover not given. Dr. Scott says: "This prover knew nothing of the pathogenesis of Sepia." She is a widow with three children; menstruation regular, but scanty, and the flow dark. The effect of the Sepia was to increase the flow and brighten its color. When she began to prove Sepia, the uterus was in a perfectly healthy condition. When the leucorrhœa began, she was immediately examined by Dr. Scott, the result being as stated below. All this is vouched for by Dr. Scott.

Dec. 31st, 1874. Water test 25.

Jan. 1st, 1875. Water test 22.

Jan. 2d. Water test 25.

About 41 years old; in excellent health; brunette.

Jan. 5th. Began taking Sepia, 200th dil., every hour, from 10 A.M. to 3 P.M.

First symptoms: Sharp pains in each ovary, and pressure to pass water; the pains ceased after passing water. Later in the day, a dull, heavy pain in the left ovary. Toward evening, a heavy, stupid feeling; aching in the legs and ankles, and a disposition to sleep; depressed in spirits; loss of ambition.

Jan. 6th. Menses came on. Took no more medicine. Had a bloated, uncomfortable feeling around the waist, and, towards night, a return of the sleepy, stupid feeling.

Jan. 7th. Took no more medicine. Water test 28. A lame,

sore feeling all day, and a continuation of the sleepy feeling. A slight headache, the pains running down the back of the head. The limbs, from the knees downwards, ache badly during the afternoon. It is a great exertion for me to work or apply myself in any way.

Jan. 8th. Test 25. Began medicine at 10 A.M.; took it twice; had a bloated feeling in the lower part of the bowels, with dull aching in the ovaries, and a return of the heavy feeling in the head, with sleepiness. Every time I took the medicine I have felt as though I had taken a heavy cold.

Jan. 9th and 10th. Took no medicine. Had an eruption on the head, back, and shoulders; it itched badly during the evening and all night. A great desire for water, drinking a glassful at a time—a very unusual thing for me.

Jan. 12th. Began the medicine at 10 A.M. Within an hour I had a pressure and heavy weight in the ovaries and a pressure to pass water. (I usually pass water twice a day, night and morning.) Took another dose at noon. Increased pain in the ovaries, dull and heavy. About 5 P.M., while walking in the street, a sudden dizziness and feeling like a drunken person, as though the walk were rising; this lasted a minute or two.

Jan. 13th. Water test 25. Took no medicine, as I was feeling too unwell. Neuralgic pain over the right eye (I was accustomed to this some time ago, but had not had it lately). Backache almost all day. It was hard work to keep around.

Jan. 14th. Headache almost all night, and when I got up this morning, lasting until noon. Took no medicine. Severe backache in the afternoon. Sharp pain in the left side near the heart in the middle of the afternoon, and again about 10 P.M. Perspired very freely, wetting my clothes around my waist (I perspire very freely at all times). Pass water much more often than is my habit.

Jan. 15th. Water test 25. Took no medicine. Some griping pains in the lower part of the bowels; passed away about 10 A.M. Feet cold and damp all day, feeling as though I stood in cold water up to my ankles (my feet are usually dry).

Jan. 16th. Took no medicine. A dull, heavy pain in the lower part of the ovaries, and pressure to pass water. Since

taking the medicine, any break of the skin, or a burn, makes a sore which lasts a long time—an unusual thing, as my skin generally heals quickly.

Jan. 17th, 18th, 19th, and 20th. Took no medicine, and had no symptoms; sp. gr. urine 30. Every night on retiring I have a pain across the lower part of the bowels, relieved by passing urine; felt it only when lying down.

Jan. 21st and 22d. Sp. gr. 30. No medicine.

Jan. 23d. Sp. gr. 30. Awoke with a dull heavy feeling in the back of the head, extending down the spine, which passed off about an hour after rising. Took the medicine at 10 A.M.; at 12 noon had a dull pain over the forehead, extending from each temple; a slight burning feeling in the eyes, and a desire to close them; they feel sore to the touch. One dose of the medicine takes away my ambition. I simply do not want to do anything, either work or play; it is even an exertion to think.

Jan. 24th. A dull headache all day, backache, and pain across the lower part of the bowels. On stepping out of bed I was taken unwell, the blood running down to my feet; flowed freely all day. Menses were not yet due. Took medicine at 10 A.M. and 12 M.

Jan. 25th. Flowed all day, and felt badly, with headache. Felt better towards night. Took no medicine.

Jan. 26th. Took no medicine. Had two slight dizzy turns during the afternoon. No other symptoms.

Jan. 27th. Took one dose of the medicine. Suffered from constipation, which caused bleeding, and weight and pain in the rectum.

Jan. 28th. Took no medicine. Had a stool, with less pain than the day before.

Feb. 13th. I gave up the medicine on January 29th, and ceased to note symptoms. I think it necessary to add them now. During the past ten days I have suffered much from constipation and from piles, with severe pains across the lower part of the abdomen, extending down the inside of the thighs, both abdomen and thighs feeling sore to the touch; at times unable to stand. Loss of ambition.

Uterus congested, and a yellowish leucorrhœa pouring from it; beginning to prolapse; slightly displaced.

SEPIA PROVING, 30TH CENT. TRIT.

Presented by Prof. William Owens, M.D., Cincinnati.

Mrs. A. G. S., aged 32 years; mother of three children; slender; blonde; light hair; blue eyes; fine, delicate, sensitive skin, which chafes easily. She is subject to nosebleed, to piles, and to rheumatic pains through the chest, though she has never had an attack of acute rheumatism. Bowels usually regular, though sometimes constipated for a few days. Menses regular and normal.

Dec. 9th, 1874. Took Sepia, 30th (not knowing what drug she was taking), one powder, of two grains, at 9 P.M., and retired at 10.30. Slept well until 4 A.M., when she awoke with a sense of fulness below the pit of the stomach, above the navel; felt warm all over; perspiration on chest and neck; felt as if the veins were full and ready to burst, and as if she could not move; she was somewhat alarmed, arose, and took a dose of Aconite 3d, and, in a few minutes, went to sleep again.

Dec. 10th. At 10 A.M., took another powder, same as before. At 4.30 P.M., sensation as if the abdomen were bloated, especially across the epigastric region, a sense of drawing as if a worm or other animal were moving about there. Hard stool, fæces covered with slime, at 6 P.M., followed by slimy, bilious, or catarrhal stool at 8 P.M., and again at 11 P.M. Slept well all night.

Dec. 11th. Had a distinct chill at 9 A.M., followed by fever, with chilliness across the stomach and bowels, and chilliness between the shoulders. The urine was thick, slimy, and very offensive, depositing a yellowish pasty sediment the next morning.

She forgot that she had her children to dress and provide for until nearly 10 o'clock. The sweat that followed the fever was exceedingly offensive and pungent; her feet, which had always been subject to perspiration (not offensive), now gave forth a most offensive odor.

The sense of fulness in the abdomen continued five days. No other symptoms were present during this time, except that she

remained languid, and was troubled with eructations of offensive sour-smelling gases.

Dec. 19th, 3 P.M. Mrs. S. took another dose as before. One hour after taking it, she felt a coldness between the shoulders, and then a general chilliness over the body, followed by sudden loss of strength and weakness about the chest, and she broke out into a profuse perspiration over the chest and neck; the hands and feet became cold as ice; her face pale; she thought she should vomit, but was relieved on getting up and moving about. She had pain and soreness through the bowels all the evening. She slept from 10 to 11, and then woke, feeling as if a load were resting across the epigastrium. She took a dose of Aconite 3d, according to her custom when disturbed in her sleep, and slept until morning.

Dec. 28th. While she was engaged in her domestic duties, she observed a fine rash over her body, particularly about the bends of the elbows and knees; this was attended by prickling, tingling, and itching; while in a warm room it remained out, and she felt well; if she passed into a cold room, the eruption would disappear, and she would then have the most severe rheumatic pains in and about these joints.

By Feb. 1st it had extended over the arms to the axillæ, and over the lower extremities to the groins. When warmly dressed, and in a warm room, she felt well; when exposed to cold or severe weather, the eruption disappeared, and the rheumatic condition returned.

When the eruption makes its appearance, it is attended by a profuse sweat, which usually lasts two or three days. She ascribes all these sufferings to the medicine taken. Can it be so?

Professor Owens reports that this prover was under his personal observation most of the time embraced in the above report. The sexual and digestive organs remained undisturbed, except as above stated.

PROVING OF SEPIA, 3D CENT. TRIT.

By Miss K... de G..., M.D.

Presented by Professor William Owens, M.D., Cincinnati.

This prover, a very intelligent and highly cultivated young

lady, aged 24, has red hair; light-brown eyes; a fine red, often deeply tinged skin, which bleeds easily; is more or less freckled; of a cheerful disposition; slender form; and a healthy but delicate constitution. She was seen each day by Professor Owens, and requested to note her symptoms; but as she was exceedingly conscientious and fearful of mistaking her own impression for drug symptoms, the result is perhaps more meagre than in truth it should be.

Dec. 5th, 1874. Began to take Sepia, 3d cent. trit., a powder every night and morning for one week.

Dec. 6th. In twelve hours had slight pain in the region of the transverse colon, and the bowels moved. Four movements during the day, and slight pain and some tenesmus during stool. (The bowels had always been remarkably regular, one stool each morning.)

Dec. 7th. Still have pain in the region of the transverse colon, and stool about every two hours, until the afternoon of this second day. Stool natural, but towards night it was diarrhœic, with tenesmus before and during stool, and burning of anus after stool, and feeling of intense bearing down in the region of the anus. Ulcerated nostrils, which had troubled me for some weeks, were much relieved.

Dec. 8th, 9th, and 10th. Headache on waking; better after moving about. Sleep does not refresh, but leaves a tired, aching feeling all through the body.

Dec. 8th. Constipated, and several pimples on cheeks and wrists, which are very sore, and of a pustular character at first, then resemble chicken-pox. Hunger constant, mostly for sweet things and meat. For ten weeks after first taking Sepia, constipation and disturbed sleep continued, and an aching in the muscles of the abdomen and limbs on waking. Pimples still on the cheeks, and continued hunger, especially for sweets. Greatly inclined to sing, and feel more cheerful than usual.

To March 1st, pimples on cheeks just before and during menstruation. Menses anticipated one day the first month and two days the second month; afterwards they came at the proper time.

REMARKS BY PROFESSOR OWENS.—The foregoing symptoms

were given spontaneously by the prover, who did not know what drug she was taking. The following were given on interrogation:

Pain all over the bowels, with sense of fulness and soreness. Prickling at the point of eruption before the pimples first appeared. The pimple was attended by burning and soreness; when opened, pus and blood were discharged, and a small pit was left at the seat of the pimple.

She declined to repeat the proving with a higher potency, on account of the annoying eruption.

PROVINGS OF SEPIA.

Presented by Prof. E. A. Farrington, M.D., and by W. McGeorge, M.D.

Prover, Leon A. Snyder; took Sepia every three hours for two days.

The morning of the third day, seized with profuse nosebleed. I have four attacks during the day, a bright-red flow suddenly appearing, and disappearing as suddenly.

Prover, P. G. Souder; Sepia, 30th trit. One dose October 31st, 1874, 5 P.M. Doses every three hours until November 1st, 10 P.M.

Nov. 1st. Slight frontal headache.

Nov. 2d. Dull frontal headache; inclination of the mind to wonder over future events.

Nov. 3d. The same.

Nov. 4th. Dull, stupid, sleepy, confused feeling through the head. Dulness of comprehension; inability to collect or express his thoughts; constantly building air-castles or running on future events.

11 A.M. Ineffectual desire to urinate.

8 P.M. Bloated feeling of the abdomen coming on about fifteen minutes after eating, and lasting half an hour.

Nov. 5th. Repeated the medicine every half-hour until the evening of the 10th instant.

Nov. 6th, 5 P.M. Slight soreness of the outer corner of the left upper eyelid; slight itching of the inner surface.

Nov. 7th. Increased soreness of the eyelid.

Nov. 8th. Lid much swollen; eye half closed; swelling beneath the lower lid; œdematous, looks as if stung by a bee; lid sore to touch and on closing the eye. Slight itching of the inner surface, causing the eye to water.

Nov. 11th. Eye somewhat better. Constant feeling of distension of abdomen, coming on shortly after eating, especially supper. This symptom was noticed throughout the proving.

Prover, J. W. Bechtel, Jr.; Sepia, 200th dil.

Took the first dose Saturday, October 31st, 1874, 2 P.M.

On the Monday following (November 2d), coming from college, felt a light sensation in the left limb, from the hip down.

Monday night, had a lewd dream, from which I wakened and found my abdomen covered with semen; it was the first time for a long while that I had had an emission.

Wednesday morning, while seated at breakfast, I felt a *cutting pain* in the hypogastric region; at the same time an imperative urging to stool; on obeying the summons I had a free and loose discharge from the bowels—previously bowels had been regular, and I seldom have pains in bowels.

Wednesday morning, I got up with boring pain over the right eye and rheumatic pain in the region of the insertion of the temporal muscle in the coronoid process, which was entirely relieved for a few minutes after eating and while eating. This pain was worse on the right side, although it slightly extended to the left side in the same region and into the right temporal region.

Thursday, while quietly sitting at Professor Gause's lecture, I felt a severe tearing pain in the left shoulder-joint, lasting but a few minutes, but there remained for a day or two a feeling as if the shoulder were wrenched.

Thursday, Nov. 5th, 2 P.M., took the 30th.

Friday, Nov. 6th. Had a seminal emission; unconscious of it until I waked; no dream; did not wake till morning.

Friday. Sensation as of a knife plunged into the palm of the left hand just on the ball behind the little finger for a few minutes.

Monday, felt a stitching pain in the left lung, and in the third toe of the right foot at the same time, of the same character, lasting but a few seconds.

All the pains came suddenly, leaving more gradually but very soon, except the pain in the face and shoulder. My appetite was impaired; have always had a strong appetite, but while taking the medicine had little inclination to eat.

Prover, J. F. Frantze; took Sepia, 3d trit., a dose every three hours, commencing November 1st.

The first symptom noted appeared after the fourth dose. A peculiar wavelike sensation extending through the body. A wavelike motion down the arms and legs to near the extremities; then a sudden interruption of wave and an expansion, with sharp rheumatic pain, lasting but a minute and then subsiding.

The Second Day. Pains in various parts of the body; severe pains over the eye, alternating from one to the other. A swelling in the eyes, burning and a flow of tears which affords relief.

Later, itching in various parts of the body, relieved by scratching, after which there is a pinkish color.

Pain constantly between the shoulders and down the back. Stiffness of the back part of the neck.

Inclination to sigh. Profuse nosebleed several times; an intolerable itching inside of the nose, which is sore on scratching.

Nov. 5th. Commenced taking the 30th trit.

Wandering pains continue and seem to increase, particularly drawing and expanding pain in the side of the neck.

Pain in the hip, worse from walking; feels dull and drowsy; a full feeling in the head.

Prover, C. Franklin Manson; Sepia, 30th trit.

Experienced, first, burning pains in different parts of the body, especially in the lower part of the left hypochondriac region; great itching of the margins of the eyelids. Tongue coated white; small white blisters inside of the cheeks; the tip of the tongue feels as if scalded. Great dryness of the lips; stitching in the anus as from a stick.

Sepia, 200th Potency.

Sores on the *septum narium;* disgust for tobacco after smoking.

Three or four days after I ceased taking medicine, I had radiating pains up the back of the neck and occiput.

Later, alternate cold hands and feet.

Prover, W. H. Tomlinson; Sepia, 200[d].

Oct. 31*st,* 1874, 2 P.M. Took first dose.

3.30 P.M. Had a sensation of fulness in the left axillary gland, in a few minutes leaving the left and appearing in the right axilla.

4.30 P.M. While walking I felt the same sensation in my right inguinal region, which soon passed off. I never had this symptom before.

Nov. 1*st.* In the evening, after walking in the cold wind, I had a sore, rough, burning feeling in my eyes, aggravated by gaslight and on attempting to read.

Nov. 2*d.* Headache all day with great mental depression. I usually feel better after a day's rest, but to-day the reverse. I cannot collect my thoughts; I cannot recall things which I know very well; the thoughts will not come.

Nov. 3*d.* I took my last dose this morning. The mental symptoms passed off towards noon. The sense of fulness returned about from 1 to 2 P.M., first in the left, then in the right axilla, then to the groin during lecture. In the evening, these symptoms have all passed off, except an occasional soreness in the axilla. Mind as clear as usual.

Nov. 5*th.* I began to take the medicine again, taking a dose at 3, 5, and 7 P.M. I had mental dulness in the afternoon. A sore bruised feeling in the right side of the median line of the tip of the nose and of the chin; also a sore bruised feeling in the left elbow in the region of the ulnar nerve.

Nov. 6*th.* The sensation in the nose and chin increased; the spot on the nose was quite red, but no point. Took the last of the medicine about noon. Between 4 and 5 P.M. severe headache, beginning at the root of the nose and going to the temples; it passed off in the evening. Later, the nose and chin symp-

toms have ceased. On Nov. 11th, and slightly on the 12th, a sharp stitching pain in the *prepuce* and *frenum prep.;* a smarting raw feeling, causing me to examine if it were not abraded. Found only a congestion of the integument. These symptoms are new to me. Axilla glands still somewhat sore.

Prover, William Dietz; Sepia, 3d trit.

Nov. 2d. Took a dose at 11 A.M., 2, 5, and 9 P.M. About 3.30 P.M. felt a heavy pressing pain over left eye, extending towards the sides of the head.

About 4 P.M. Sensation of great fulness deep in the left orbit; headache confined to the left side better in the evening; made worse by shaking the head; better in the open air; when I went to bed, 11.30 P.M. very slight headache.

Nov. 3d. Woke at 7 A.M. with darting-pressing pain in the right eye, lasting about fifteen minutes, when it ceased in the right eye and appeared in the left eye. Occasionally darting pains extending from the left eye over the side of the head towards the occiput.

I took the medicine at 7.30 and 11 A.M., and 2, 5, and 9 P.M. The pain in the left orbit and left side of the head continued all day long, as described yesterday,—a heavy pressive pain or fulness, with occasional darts through the eyeball and side of the head; headache better after meals.

Nov. 4th. I took the medicine at 8 and 11 A.M., and 3, 7, and 10.30 P.M. Felt well on waking this morning (7.15 A.M.). About 8 o'clock, had some pain, as yesterday, and it lasted all day; no particular time of aggravation. Both eyes feel heavy, with tendency to keep them closed. Indisposition for mental labor, which aggravates the headache.

Nov. 5th. Took medicine at 9 and 11.30 A.M., 3, 6, 10 P.M. Headache same as yesterday.

Nov. 6th. Took Sepia[200] at 7.15, 10.30 A.M., and 1, 4, 7.30 and 11 P.M. Awoke in the morning with slight headache, which grew worse towards 9 A.M., lasting so for about an hour, when it abated. At 1 P.M. no headache at all. In the afternoon, felt quite well.

Nov. 7th to 10th. Took five or six doses 200th daily; no symptoms. No more headache.

PROVINGS OF SEPIA.

Presented by C. Wesselhœft, M.D., Boston.

Prover, S. Calderwood; Sepia, 30th trit. Took the medicine, one grain, every night and morning, for three days; then, one grain at night for several days, but perceived no results that could be ascribed to the medicine.

Prover, Galen Allen; Sepia, 30th trit.
No symptoms.

Prover, George H. Payne; Sepia, 30th trit.

Took one grain at night on retiring, and the same the next morning.

In the afternoon of the same day, I had a burning heat in the throat, with fulness and pressure in the head; this gradually increased into a severe frontal headache, more severe over the left orbit.

At night, I took one grain with increase of symptoms, and tightness and constrictive sensation in the chest; hard, dry, concussive cough. These symptoms continued four or five days. Have repeated the medicine several times since, with the same symptoms.

Prover, W. E. Knight; Sepia, 30th trit.
No certain symptoms.

Prover, Susan J. Dudley; Sepia 30th trit., every morning and evening for five days.
No result.

Prover, A. H. Allen; Sepia, 30th trit.

Proving interrupted by recurrence of an old trouble which has appeared periodically for eight years—*hæmorrhoids*. The report is as follows:

Nov. 15th, 1874. Took one grain 8.30 A.M. half an hour before eating.

2 P.M. Face flushed; nose dry; every symptom of cold in the head; felt sleepy, and must lie down; head felt swollen. Relief from lying down.

3 P.M. The same day, one hour and a half after eating, repeated dose. Later in the P.M., stuffed nose.

In the evening, watery, colorless mucus from the nose; slight frontal headache, passing around on the right side to the occiput. Voice like that of a person with cold in the head. These symptoms were not present the next morning.

Prover, H. M. Irwin; Sepia, 30th trit., one grain, night and morning for three days, then every night till symptoms appeared. Began Nov. 15th.

Nov. 16th, P.M. In the evening had a severe headache, characterized by pressing pains in the temples, which seemed to press outwards, began 6 P.M., and continued until next morning. Have had similar headaches after drinking strong coffee, but had taken no coffee while taking the medicine.

Nov. 30th, about 10.45 P.M., on retiring, and about ten minutes after taking the drug, felt a dull pain in the right upper chest, soon followed by a boring pain in the point of the left testicle, and at about the same interval as the preceding two symptoms. This was followed by a pain in the right groin near Poupart's ligament. This remained constant, while the other two came and went at short intervals, till I dropped asleep, when no more of the symptoms could be felt. I never felt these symptoms before. No further symptoms.

Prover, B. A. Sawtelle; Sepia, 30th trit.

Nov. 14th. Took one grain on retiring. No result.

Nov. 15th. One grain on rising. About 2 P.M., had a severe pain in a circumscribed spot about one and a half inch in diameter, immediately over the spleen, *deep*. This continued until 3 P.M.; I then began to have a flushed face, quick pulse (100 to 110), and dull frontal headache. About 4.30 P.M., felt very hungry, and after eating a little felt satisfied, and the stomach

felt full. After eating, the pain was relieved; but I felt sleepy, and went to sleep, sleeping until 7.30 P.M. On awaking, the pain was in the lumbar region, more on the left side. Pain in the lumbar region all night, of a dull aching character.

Nov. 16th. Pain in the back better this forenoon. The left eye ached very badly this afternoon; sight dim, and an appearance as of a mist before the eye; pain in the eye ceased in the evening, and then came a feeling as if the head was stuffed. Pain in the lumbar region somewhat, but not much, better.

Nov. 17th. Pain in the back all day, more of a dull ache. Pain in the left side of the head this afternoon, over the left eye, worse in the evening; it kept me awake a long time after I went to bed.

Nov. 18th. All the symptoms decreased. Still some pain in the back, and a general languid feeling of the whole body.

Nov. 19th. All the pains were gone, but I felt all day as if I did not care what happened.

The urine and stool were normal, and, as a rule, appetite as good as usual. Sleep pretty good, but not refreshing; I spent hours enough in bed, but they did no good. Never had any form of backache before I took this medicine. Have had trouble with my eyes, but no such symptoms as these.

SEPIA PROVINGS.

Presented by Prof. T. F. Allen, M.D., New York.

Prover, W. W. French; Sepia, 200[d].

Dec. 2d to 22d, 1874. Took temperature of axilla three times daily. It was uniformly 98° morning, 97° at noon, 97½° at night. Pulse varied from 54 to 66, being faster in the morning. Respiration 15 and 16, corresponding to the pulse. Average daily amount of urine, ℥28. Average sp. gr. of urine, 22.

Jan. 6th to 11th, 1875. Temperature, morning, 98°; night, 97½°. Pulse, morning, 60; night, 55. Respiration, morning, 16; night, 15. Average urine, ℥30¾. Average sp. gr. of urine, 22.

Jan. 11th. Took Sepia[200], at 7 A.M. I repeated dose, every half hour, all day. The amount of urine voided was ℥20, and the average sp. gr. was 27. On standing, the urine began

to grow cloudy, and to deposit a white sediment on the side of the vessel. No other symptom.

Jan. 12*th*. Urine, ℥xxiij; sp. gr., 22.

Jan. 13*th*. Urine, ℥xxiv; sp. gr., 24; clear, and no sediment.

Jan. 14*th*. Urine, ℥xxiij; sp. gr., 21.

Jan. 15*th*. Urine, ℥xxiv; sp. gr., 24; with no change in color, and no other change in bodily condition.

Jan. 16*th*. I began to take Sepia, 30th trit, at 8 A.M. Temperature and pulse as usual. Urine, ℥xxvj; sp. gr., 24.

Jan. 17*th*. Took a dose Sepia, 30th, every half hour, all day. Urine, ℥xix; sp. gr., 28; and on standing, a brickdust sediment formed, and the vessel was coated on the sides with a white substance, making the glass look like ground-glass. That night I had very distressing dreams, and could see mice, rats, and snakes; no pain, but very dreamy and restless; heard noises in the street, and people talking, running, etc.

Jan. 18*th*. Urine, ℥xix; sp. gr., 27; bad odor; red deposit of a deeper color; smarting of the urethra while passing water. I could not keep my mind on my books, nor follow the lectures; attention wandering; constant change of my thoughts; moody feeling; no pain. I could not sleep, from the sights I saw and noises I heard; tossing about the bed.

Jan. 19*th*. Urine, ℥xxij; sp. gr. 23. At 9.30 P.M., dull pain over both eyes; it seemed to be in the bone. Sleep restless; bad dreams; tired feeling in the morning. No sediment in the urine; it looks healthy.

Jan. 20*th*. Urine, ℥xxiv; sp. gr., 22.

Jan. 21*st*. Urine, ℥xxviij; sp. gr., 22.

Jan. 22*d*. Urine, ℥xxxj; sp. gr., 21. No sediment; looked healthy.

Jan. 23*d*. Began taking again Sepia[30], 8 A.M. At noon passed water, which was clear, sp. gr., 26, and on standing four hours there was a brickdust sediment, and the sides of the vessel were coated white; no pain. 9 P.M. Urine showed sp. gr., 34, and was flocky when voided, and on standing two hours there was a dark brickdust deposit, and the sides of the vessel were thickly coated with a white substance. I experienced the same restless feelings that I had on the 18th; but no pains.

Jan. 24th. My mind wandered very much, and I felt moody, depressed. While I was taking Sepia there was no change in temperature, respiration, or pulse.

I am regular in my habits; eat and sleep regularly; use no spirits of any kind; tea, nor coffee, nor tobacco. I did not change my habits of study, nor my hours. Bowels move regularly, once daily, and did so during the proving.

Prover, Alfred Wanstall; Sepia, 30th, at intervals of a half to three hours, all the time.

Table of Urine and Temperature while Proving Sepia[30].

	Urine.	Sp. gr.	Temperature.
Jan. 17th, 9 A.M.,	℥ix.	28	97°
2 P.M.,	℥ix.	22	98°
7 P.M.,	℥x.	24	98°
12 P.M.,	℥x.	24	97½°
Jan. 18th, 9 A.M.,	℥viij.	24	97½°
1.20 P.M.,	℥vj.	27	98°
6 P.M.,	℥vij.	28	98°
12 P M.,	℥viij.	28	98°
Jan. 19th, 9 A.M.,	℥ix.	28	—
1.30 P.M.,	℥vij.	26	98½°
7 P.M.,	℥vij.	32	—
11 P.M.,	℥iv.	25	98°
Jan. 20th, 9 A.M.,	℥ix.	25	98°
1.30 P.M.,	℥vj.	27	—
6.30 P.M.,	℥vij.	27	98°
12.30 P.M.,	℥viij.	31	98°
Jan. 21st, 9 A.M.,	℥viij.	28	—
2 P.M.,	℥vij.	—	—
6 P.M.,	℥vij.	26	97½°
12 P.M.,	℥vij.	32	98°
Jan. 22d, 9 A.M.,	℥viiiss.	26	98°
1.30 P.M.,	℥vij.	—	—
6 P.M.,	℥xj.	21	97½°
11 P.M.,	℥xj.	22	98°
Jan. 23d, 8.30 A.M.,	℥xiij.	24	98°
1 P.M.,	℥vij.	—	—
7 P.M.,	℥x.	24	97½°
12 P.M.,	℥iv.	32	—

Jan. 16th, 1875, evening, began to take Sepia, 30th trit.

Jan. 17th. Teeth sensitive to cold air. Dull, tired pain in

the right shoulder and muscles of the back of the neck. Dull pain in the small of the back; tired feeling in the back; on sitting down he had to sit very straight. Dull, drawing pain in the suprascapular region on the right side. Transient dull pain in the forearm (right side). Waked several times during the night; restless during the night.

Jan. 18th. Constant dull, drawing pain in the back part of the neck (right side); worse on bending the head to the opposite side; feeling of tension in the neck. Deepseated, tensive, dull pain in the lumbar region (right side). Transient dull, drawing pains in the right forearm and thigh. Frontal headache during the day; queer feeling in the head. Transient aching pain over the right eye and going into the eye. Constant aching pain in the back of the neck (right side), generally better after dinner in the evening.

Jan. 19th. Slight frontal headache off and on during the day. Urging to stool in the evening (unusual); stool insufficient and difficult to pass.

Jan. 20th. Small, soft stool in the morning. Dull aching frontal headache (left side); transient aching in left eyeball. Dull pain in the left lumbar region. (For the last two days have had the contractive pain in the back of neck, mostly on right side, and weakness of right wrist when using the hand.) Frontal headache during evening. Very sensitive to cold.

Jan. 21st. No symptoms.

Jan. 22d. Hard, difficult stool at night.

No more symptoms.

Prover, H. H. Tinker; Sepia, 30th trit.; a dose every half hour, Dec. 15th, 1874.

Nov. 4th, 1874. I began this morning to observe my general condition before proving Sepia. 8 A.M. Temperature 98°; pulse 84. My general health is good. I am just recovering from a cold, and have a slight cough. I sleep and rest well. My appetite is good.

9 P.M. Pulse 80; temperature, 98°. One stool as usual. Urine, sp. gr., 20.

Nov. 5th, A.M. Temp. 97°; slept well.

P.M. Temp. 98°; pulse 84; urine, sp. gr., 30; one stool.

Nov. 6th, A.M. Temp. 98°; pulse 83; slept well.

P.M. Temp. 98°; pulse 80; urine 30.

Nov. 7th, A.M. Temp. 96°; pulse 80; slept well; cough ceased.

P.M. Temp. 97°; pulse 78; urine 30.

Nov. 8th, A.M. Temp. 98°; pulse 72; urine 22.

P.M. Temp. 97°; pulse 73; urine 28.

Nov. 9th, A.M. Temp. 97°; pulse 76; urine 20.

P.M. Temp. 97°; pulse 78; urine 30.

Nov. 10th, A.M. Temp. 98°; pulse 75; urine 22.

P.M. Temp. 98°; pulse 75; urine 20.

Nov. 11th, A.M. Temp. 98°; pulse 76.

P.M. Temp. 97°; pulse 72; urine 30.

Nov. 12th, A.M. Temp. 97; pulse 73.

P.M. Temp. 98°; pulse 78; urine 30.

Nov. 13th, A.M. Temp. 97°; pulse 74.

P.M. Temp. 98°; pulse 77; urine 30.

Nov. 14th, A.M. Temp. 97°; pulse 73.

P.M. Temp. 98°; pulse 75; urine 28.

Nov. 15th, A.M. Temp. 98°; pulse 74; urine 22.

P.M. Temp. 97°; pulse 72; urine 29.

I pass, on an average, about six ounces of urine five times in the twenty-four hours. It is normal in color, with no sediment.

Dec. 15th. I began to-day at 6 o'clock the proving of Sepia, 30th; dose every half hour.

Dec. 16th. I was perfectly well before taking the medicine. To-night I notice that my head feels heavy on the right side.

Dec. 17th, A.M. It seems to me that I have taken cold by the sensation, although I have not exposed myself. Head troubles me very much; the anterior and posterior nares and the pharynx seem as though they had been skinned; these feelings are mostly confined to the right side. Head feels dull and heavy, and there is a thick yellow mucous discharge from the right side, and on putting the finger into the nose, it becomes bloody. The sensation is the same that I once had after snuffing persulphate of iron into the nose, a kind of excoriated sensation. Taste is altered, insipid. Pains shooting into the right ear, and a dull

pain over the right eye and in the right temple. Pulse, A.M., 90; temperature 98°; urine 30.

I am becoming thick-headed, also, for it seems as if I could not remember the things that I knew yesterday. It is hard work for me to think or to study. My body, with the exception of my head, is as usual. My right eye looks red and feels sore; left eye normal. I feel better when out of doors. I cannot think as usual. It seems as if my mind were hedged in, as if it were circumscribed; as, for instance, I cannot compare two things, *e.g.*, Bryonia with another drug; cannot get out of a narrow line of thought. It seems as if my mind were enervated. The left side of my head feels very heavy, as if it would drop down. The nose on the right side feels sore and raw around the ala nasi, although the discharge from that nostril is thick and yellow. It seems as if the posterior nares were raw.

No stool since taking Sepia. Urine passes as usual; it is dark-red.

2 P.M. I have a very severe headache, which runs from my right temple to my left temple, and extends into my eyes and nose; all seems as if it were raw.

4 P.M. I have had a singular sensation about the pelvic region; a sort of weakness about the small of the back, pubic bones, and around the anus, a dragging pain. On blowing my nose I have a dizzy sensation.

Hoarse this evening, and have a slight swelling of the right parotid gland.

9 A.M. Pulse 80; temperature 98°; urine 30. Urine is very high-colored, and less in quantity than usual; passed only three times.

Dec. 18th. A sort of yellowish-red deposit adheres to the sides of the vessel, but there is no sediment that does not adhere to the vessel. I drink less water than usual. Have an excoriated feeling about the anus. Temperature 98°; pulse 82; urine 30. A profuse yellow discharge from the nose, and after rising this morning had an attack of nosebleed. My throat, nose, and all feel raw as if skinned. I feel irritable, and it is hard work for me to fix my mind on my studies. My urine is as red as a brick.

6 P.M. Am suffering with a pain or great weakness in the

small of my back. My nose feels very raw and sore. I have also a pain running from one temple to the other like a pressing together. Temperature 97°; pulse 80; urine 30. I pass less water than usual; have passed only three times to-day, about four ounces at each time. Constipated. The eyes feel very sore as if bruised. I have backache and feel weak.

10 P.M. Have pain in the right iliac region near the crest, a pulling painful sensation. Temp. 98°; urine 30.

Dec. 19th, A.M. Temp. 98°; pulse 80; urine 30. I have a great dragging in my right side, and my throat feels as if it had been skinned. My hip seems well so long as I keep still, but after moving the pulling commences.

3 P.M. The pain in my right side is nearer to the sacrum; it is a dull heavy ache, a pulling sensation. I notice that my lips are cracking; they feel very dry; I have no desire for water at all, even at meal-times.

My head symptoms continue; it feels dull and heavy over the eyes and in the forehead. I don't wish to study; my mind is not so clear as common. Temp. 97°; pulse 75; urine 30. Urine very scanty, of a deep-red color; have no time to pass water, and pass but little at a time.

Dec. 20th: Throat symptoms about the same; pain in hip and back not so severe. Temp. 97°; pulse 74; urine 30. Constipation with urging to stool; no stool for three days; while at stool, a painful raw sensation in the anus. I have had a sense of nausea all the morning, with no desire for food; think I will not dine to-day. Feel dull and heavy; things trouble me; when I study, cannot apply my mind to the subject, but constantly think of something else; worrying about something all the time. Tongue coated brown with red edges.

6 P.M. Temp. 97°; pulse 75; urine 25. Other symptoms the same.

Dec. 21st, A.M. Tongue coated yellow in the middle and at the posterior part; tip and edges red. Thick yellow discharge from the nose. Both ears feel as if plugged up—am somewhat deaf; obliged to ask that a question be repeated.

1 P.M. Temp. 98°; pulse 80; urine 25. Very scanty; a red deposit on the sides of the glass.

My back still aches and causes nausea, and a faint feeling while standing.

6 P.M. Temp. 97°; pulse 74; urine 25.

Dec. 22*d*, A.M. About the same; slept well. Head feels dull and heavy; it is hard work to think. Urine very high-colored, it looks like powdered brick. On blowing my nose, I notice blood mixed with the mucus.

Temp. 97°; pulse 74; urine 22, very high-colored and scanty.

Noon. Temp. 96°; urine 30.

6 P.M. Head is improving; throat ditto. Back still uncomfortable.

Dec. 23*d*. Leaves New York for vacation.

Jan. 5*th*, 1875. Symptoms gradually disappeared. Urine remained very dark-red up to yesterday; to-day it looks clearer.

NOTE BY PROF. ALLEN.—The prover explains the backache: "Pain in the back and in the sacrum, mostly between the lumbar region and the crista ilii; more on the right side; a *pulling* or *dragging; feeling strained when walking.*"

Prover, S. P. Barchet; Sepia, 30th trit.; small doses every hour. Age 31; nervous temperament. Small stature. Habits simple. General health good, but not robust. Pulse ranging from 55 to 80. Respirations full and slow.

	Urine sp. gr.			Temperature.	
1874.	7 A.M.	10 P.M.		7 A.M.	10 P.M.
Nov. 7th, ...	22	05	due to eating a sour orange.	97°	96°
8th, ...	12	26		97°	96°
9th, ...	26	28		97°	96.5°
10th, ...	20	22		97.5°	96.5°
11th, ...	22	22		97°	96°
12th, ...	22	22		96°	96.5°
13th, ...	22	12		97.5°	96.5°
14th, ...	20	24			96°
15th, ...		12		97°	96.5°
16th, ...	24	26		97.5°	
17th, ...	12				
19th, ...		28			96°
20th, ...	22	28		97.5°	96°
21st, ...	22	26		97 5°	96°
22d, ...	20	12		97.5°	96°

1874.	Urine sp. gr. 7 A.M.	10 P.M.	Temperature. 7 A.M.	10 P.M.
23d, ...	14	28	97.5°	96°
24th, ...	20	16	97°	97°
25th, ...	14	24	97.5°	96°
26th, ...	20		97°	
27th, ...		20		96.5°
28th, ...	18	28	98°	96°
Dec. 10th, ...	24	26	97°	97°
11th, ...	20	26	97.5°	95.5
12th, ...	20		97°	
13th, ...	20	22	97°	96°
14th, ...	12		98°	

Dec. 14*th*, 1874. I began to take Sepia, 30th trit., in small doses, repeated every hour. One hour after the first dose I had a shooting pain in the second right upper molar.

2*d hour*. Heaviness in forehead and temples; dizzy unsteady feeling when getting up to walk. Smarting pain in urethra.

Dec. 15*th*. Urine, sp. gr., 22 in the morning, 26 in evening. Temp. (axilla) 97°. Going out in the morning into the open cold air produced great discharge of tears from the right eye, painless. Seated for a while in the warm room this ceased. Dull pain in upper lobe of left lung.

Dec. 17*th*, 7 A.M. Temp. 97.5°; urine, sp. gr., 24. 10 P.M. Temp. 96°; urine, sp. gr., 32. Had shooting, stitching pain in the left molars, mostly from 11 to 12 o'clock, also shooting in the inner sides of the tips of the fingers. Dizziness returns when rising to walk. General prostration and weariness in the joints especially in the knees. Headache all day; worse from 5 to 6 o'clock P.M. The least movement of the head causes dizziness; moving the head from side to side causes a feeling as if the brain-mass inside the cranium were moving. At 5 P.M. had a slight chill. At 6 P.M. flashes of heat, the skin getting slightly moist. Shooting pains along the inner side of the whole right arm.

Dec. 18*th*, 7 A.M. Temp. 98°; urine, sp. gr., 22. 10 P.M. Temp. 96°; urine, sp. gr., 28. A sore throat from which I had suffered ever since I had small-pox, eight years ago, is somewhat improving. A long-continued pain under the right shoulder; a sharp pain along the canal of the urethra. Slight nausea after lunch. Smarting pain on the outer side of the right hand.

Dec. 19th, A.M. Temperature 97°; urine, sp. gr., 24. P.M. Temperature 96°; urine, sp. gr., 30. Urine high-colored, quickly becomes turbid and stains the bottom of the vessel. No special symptoms till 5 P.M. Pains appear on the left side. Occasional stitches along the urethra. Stitching-smarting pains in the left knee and on the inner sides of thighs and arms.

Dec. 20th, A.M. Temperature 97.5°; urine, sp. gr., 24. P.M. Temperature 96°; urine, sp. gr., 30. Nothing special during the day, except a lame feeling in the knee-joints and stitching pains in the temples. On lying down at 11 P.M., six sharp stitches in the left temple, three of which were very severe and painful at short and equal intervals.

Dec. 21st, A.M. Temperature 98°; urine, sp. gr., 28. P.M. Temperature 97°; urine, sp. gr., 30. Symptoms distinct and more severe on the left side. Shooting, smarting pains along the inner side of the left arm and leg while sitting or at rest, at intervals during the day, worse in the evening from 5 P.M. till late. Smarting and tingling pains in the urethra.

Dec. 22d. A.M. Temperature 98°; urine, sp. gr., 26. P.M. Temperature 97°; urine, sp. gr., 32. Severe shooting pain in the left temple from 12 to 7 P.M.; pains also higher up about the anterior inferior angle of parietal bone. Repeated shooting pains in the heel. Sour eructations. Old symptoms reappear towards evening.

Dec. 23d, A.M. Temperature 98°; urine, sp. gr., 24. P.M. Temperature 96.5°; urine, sp. gr., 26. No new symptoms.

Dec. 24th, A.M. Urine, sp. gr., 22. A sharp shooting pain through the heart, like an electric shock, about noon. Left off taking Sepia.

Dec. 25th to Jan. 5th, 1875. Vacation; absent from the city and pursuing a different mode of life. Frontal headache and pain in the temples returned daily, more marked morning, noon, and evening. Riding in railway car brought on something like a severe cold in the chest, the voice remaining quite hoarse, deeper in tone, and unnatural for some days. Nervous irritability compelling me to be quiet. Speaking caused fatigue, if continued for any time. Lungs felt slightly sore, but no cough and no expectoration, except now and then to clear the throat of

a little phlegm. Language comes very slowly. I have to drag out the words to express ideas; forget the chief points, etc.

During this time (Dec. 25th to Jan. 5th) I could not conveniently take sp. gr. of urine. It remained high-colored, turned turbid quickly, and in the urine voided the evening before, I notice in the morning a fine reddish sediment.

Jan. 8th. A few vesicles appear on the upper lip, right side, sore to the touch. Had sharp tingling pains in the tips of the fingers, with occasional sharp stitches in the upper incisors; had also digging pain in the eyeball. The left ala nasi is getting quite sore, but no catarrh.

Jan. 9th. I noticed a peculiar quite unpleasant exhalation from the body after getting warm in bed. Had flashes of heat all over the body about 8.30 P.M.

Jan. 12th, A.M. Urine, sp. gr., 28. P.M. Urine, sp. gr., 30. Had a sharp stitching pain on inner side of left foot and underneath the toes after going to bed. Aching in tibia.

Jan. 13th. Urine, sp. gr., 30. Aching in lower part of both tibiæ 12 to 1 P.M. Pain along the sole of the left foot to a point between the fourth and fifth toes. Painful stitches in the left temple returned 6 P.M.

Jan. 14th. Shooting, sharp pain in the upper bicuspids, left side, about 8 A.M. Dull aching pain in chest, right side, near sternum, fourth and fifth ribs. 12 to 1 P.M., pains in chest return. Also dull aching pains in region of kidneys and small of back. Pain darting along the wrist and dorsum of the right hand to between first and second fingers; soon a similar pain on corresponding side of the palm of the hand. Smarting pains in the urethra near the meatus. On clenching the fist, the last joints of the fingers feel sore; if pressed, they are quite painful.

Jan. 15th. Waked last night with stitching pain in the right temple.

Jan. 26th. Since the 14th inst. I have had a vesicular eruption on the scalp, chest, back of the shoulders, and also on the calves of the legs, and on the knee-joints. A few of the vesicles became pustules, and when squeezed yielded a tough, sticky matter; but pressure was painful and made them look angry. Those on the scalp itched; brushing the hair was agreeable, but combing

or scratching made the pustules sore. The brush brings off more scales than usual. The skin of the nose is also peeling.

During the first part of the proving I slept soundly, but now, sleep is restless. I had some dreams, but cannot recall them, except one, of a foolish character (an old gentleman of 70, running away from his wife and suspected of having married another).

Jan. 22d and 24th. The quantity of urine was so small as to alarm me; not more than a pint in twenty-four hours. There was a constant irritation and inclination to urinate. No further new symptoms. Old ones still return, especially marked about 12 to 1 P.M., and 4 to 6 P.M.

Prover.—A. J. Sherman, Buffalo, N. Y.

Dec. 17th, 1874. I have taken in the past week Sepia, 30th, one grain repeated every hour. At present, have a severe itching on the right side of the pubes, worse at night, on going to bed; becoming moist after scratching and forming a thin scale, easily pulled off.

Dec. 28th. This eruption has nearly disappeared.

Jan. 14th, 1875. Took five one-grain doses of Sepia, 30th trit., at intervals of an hour, beginning at 1 P.M. 8 P.M. A sharp pain under the ensiform cartilage, as if a nerve were made tense, in a spot that could be covered by the end of the finger, worse from inspiring and going upstairs. Heart's impulse and rapidity increased, especially during inspiration. Have occasionally, in the past, noticed a slight irregularity of pulse.

Jan. 17th. The pain and irregularity of the heart have entirely disappeared. Eruption on pubes increased. It had almost entirely disappeared.

	Temperature.	Urine.	Sp. gr.
Jan. 20th, 9 A.M., . . .	98.5°	℥viij.	22
1 P.M., . . .	—	℥xviij.	15
Midnight, . . .	97.5°	℥x.	22
Jan. 21st, 9 A.M., . . .	98°	℥xij.	20
1 P.M., . . .	—	℥viij.	14
Midnight, . . .	97.5°	℥xij.	22
Jan. 22d, 9 A.M., . . .	99°	℥ixss.	16
1 P.M., . . .	—	℥viij.	20
6 P.M., . . .	—	℥x.	15
Midnight, . . .	97.5°	℥iv.	25

	Temperature.	Urine.	Sp. gr.
Jan. 23d, 9 A.M., . . .	97.5°	℥viij.	15
8 P.M., . . .	—	℥xx.	14
Midnight, . . .	97°	℥vij.	24
Jan. 24th, 9 A.M., . . .	99°	℥ixss.	20
1 P.M., . . .	—	℥x.	10
7 P.M., . . .	—	℥xij.	16
10 P.M., . . .	99°	℥iv.	22
Jan. 25th, 9 A.M., . . .	97.5°	℥x.	18
1 P.M., . . .	—	℥xj.	16
9 P.M., . . .	—	℥x.	24
Midnight, . . .	97.5°	℥iv.	26

Prover, Edward Cranch, M.D.; Sepia, 3d trit., every half hour.

Dec. 17th, 1874. Age 23; weight, 153 lbs.; height, 5½ feet. Average pulse, 85; average temperature, 98¾° No catarrh, headache, nor digestive disorders; bowels regular; general health robust. Nervous system calm, not easily affected by pain nor sudden impressions of any kind. Sexual system well under control (single and continent). Inclined to be drowsy, sleep a good deal. Use no alcoholic stimulants nor narcotics; tea and coffee only occasionally. Special senses acute, and in good order. Urine clear, amber-colored, acid, free from sediment, film or cloud, passed about every six or eight hours. Average daily quantity (winter) about ℥xl; sp. gr., A.M., 29; P.M. (5 P.M.), 22.

Dec. 17th. Took one grain, 3*d trit.*, every half hour, beginning at noon. A very cold day; I passed 48 ounces urine; sp. gr. in morning, as usual, 29 (*before* taking any Sepia); at 5.45 P.M. it was 22.

Dec. 18th. Continued Sepia, 3d, one grain every hour. 9 A.M., sp. gr., 29; clear as usual. 9.30 P.M., sp. gr., 29; quantity, 42 ounces in the twenty-four hours.

Dec. 19th. 8 A.M., sp. gr., 32; 6 P.M., 30; amount 45 ounces. This urine deposited, after a few hours, a white, filmy sediment on the sides of the glass, and on the rod left in it, not removable by water alone, nor by *Acetic acid;* removable by *Caustic potassa*, by *Ammonia*, or by Nitric acid; not otherwise examined. Feeling of desire to pass urine more urgent than common, the sensation being referred to the neck of the bladder.

Dec. 20th. Urine smells badly, looks turbid. 8 A.M., sp. gr., 31. 9.30 A.M., a slight but decided tingling in the urethra, for about one inch back from the head of the penis. No other symptoms.

I took no Sepia after December 19th, and had no more symptoms until January 14th, 1875. At 8.30 P.M., took Sepia, 3d, 10 grains; 9 P.M., do.; 9.30 P.M., 5 grains; urinated freely. 10.15 P.M., 5 grains; 11 P.M., 10 grains; passed a little urine, ℥ij, sp. gr., 31, which presented, next morning, the following phenomena: Reaction slightly acid; deposit of a white adherent film; sediment at bottom of tube slightly *pinkish;* the sediment readily dissolved on slight heat (*not* by a few drops of Nitric acid), and displayed under the microscope amorphous particles, and on standing a long time (forty-eight hours) crystals of uric acid appeared.

N. B.—(According to Bird, the above indications are those of a deposit of the urates of soda, potassa, ammonia, and magnesia.)

Jan. 15th. I woke with a dull headache, which ceased on rising. 8.15 A.M., passed 12 ounces urine; sp. gr., 29. Between 8.15 A.M. and noon, I took 30 grains of Sepia, 3d trit., and at noon I passed 9 ounces urine; sp. gr., 23. Total amount of Sepia, 3d, taken in the day, 70 grains. Total amount of urine passed, 53 ounces (a cold day). 9.45 P.M., a dull headache through both temples (slight), and tired feeling. I feel a tingling at the meatus urinarius.

Jan. 16th. The urine of last night had a heavy white deposit, showing the same characters as before. No headache; but an uncommon urging to urinate (as in the former proving). 8.15 A.M., passed 15 ounces urine; sp. gr., 21. 9.45 A.M., having been constipated since the 14th, I feel now a sudden, VIOLENT ACHING in the anus, relieved by fast walking, and ceasing entirely as soon as the fæces began to pass (never had anything like it before). Had, to-day, slight aching at the neck of the bladder just after urinating, and tingling in the urethra later. Occasional slight twinges of headache in the sides of the head. Unaccountable feeling of weariness; hungry feeling in the stomach, very soon after meals (two hours). Slight aching in the

region of the kidneys. Between 1 and 2 P.M., considerable tingling in the urethra, as in the first proving, only more severe. No more symptoms.

Jan. 17*th and* 18*th.* Some tingling in the urethra.

Jan. 19*th.* Well.

SEPIA PROVINGS.

Presented by Professor C. Wesselhœft, M.D. (Second series.)

Prover, Miss A . . . . S. M . . . . , Gloucester, Mass.

Took Sepia, 3d trit. (not knowing what the remedy was); was feeling perfectly well in every way at the time. In five days she took fourteen grains; no effects whatever.

Prover, Julia H. S . . . .; Sepia, 3d. trit.

Took one dose (not knowing what drug it was) morning and night, as much as would lie on a three-cent piece; took it four days, then omitted it four days.

The marked symptoms occurring each time after the second day were:

Unusual clearness of intellect; ability to give close consecutive thought; and greater quickness of memory.

An increase of strength; also a healthful appetite. A quiet, refreshing rest at night, waking in the morning always with a consciousness of feeling very well.

My *general* condition is exceedingly languid in the morning. I cannot get dressed until a cup of *café noir* is brought to me.

The third and fourth mornings after taking the medicine, I did not care for my coffee.

Prover, Mrs. M . . . .

April 23*d.* Took two powders Sepia, 3d trit. (not knowing what the drug was).

April 24*th.* One powder 6.30 A.M. 7.30 A.M. Feeling of prostration. 9 A.M. *Goneness,* principally located in stomach. 10 A.M. Craving for food; inclined to take a long breath; feeling of weight in the chest as from outward pressure; everything seems an exertion.

April 25th. Took a powder 6.30 A.M. The same symptoms of prostration and goneness. 9 P.M. Took a powder; disturbed sleep all night from unpleasant dreams.

May 21st, 6.30 A.M. Took a powder. Tired feeling all over, which lasted all day. Prolapsus uteri, with inclination of the fundus to the left side, producing a numb feeling in the entire lower half of the left side of the body, with dull, aching pain constantly; also the same aching pain in the pelvic region, somewhat relieved by the recumbent posture, especially when lying on the right side. Tenderness of the os uteri.

May 23d, 6.30 A.M. Took one powder. The same symptoms as on the 21st; but, in addition, a sharp piercing pain in the lower lobe of the right lung, coming in paroxysms, and so severe as to almost make me cry out.

Prover, Miss C. E. H . . . .

Took Sepia, 3d trit., not knowing what it was, at night for one week. No symptoms, except the disappearance of some symptoms, *e. g.*, a clearing of the mental powers, head clearer, and general improvement. I don't know whether to attribute this to the medicine or to leaving the dissecting-room about this time.

Prover, Caroline A. H . . . , Taunton, Mass.; Sepia, 3d trit.

April 21st, 1875. First dose at noon. In forty minutes after, a hot flush over face and whole head, lasting but a few seconds, instantly followed by slight perspiration, and that by headache in the right side of the head and face, not severe, but with a surging sensation in the forehead, like waves of pain rolling up and beating against the frontal bone.

1.30 P.M. Pain in head more severe; still on the right side.

2 P.M. Headache somewhat abated after eating dinner; increased again in ten minutes.

2.45 P.M. Flush over the head, with severe pain in the head, extending somewhat to the left side of the forehead.

4 P.M. Pain in head less severe.

5 P.M. Slight flush, with slight perspiration, and slight increase of pain in the head.

Evening. Pressive headache all the time, most in the frontal region, feeling as if she had taken cold, with soreness and burning in the nostrils and aching in the alæ nasa. The right nostril feels stuffed, yet there is a slight watery discharge.

Midnight. Headache lasting till midnight, but abating after going to bed. Nose symptoms also abate at the same time.

April 22d, 7 A.M. Second dose.

Headache returned, but not so severe as yesterday.

10 A.M. Pain in forehead quite violent; nose burning and painful, especially at root of the nose.

Noon. Violent pain in the head, mostly in the forehead and malar bones, with heat in the forehead. The eyes feel tired and look injected; face pale. The whole feeling is one of a severe cold in the head.

3 P.M. Lay down till 6 P.M. and slept. Headache relieved by rest and sleep.

April 23d, 9 A.M. Third dose.

Noon. Some headache and pain in the face, but not marked, unless she thinks about it, then pain is quite severe.

6 P.M. Flush of heat in face and head, followed by perspiration on the same parts; headache abated.

April 24th, 10 A.M. Fourth dose.

Some headache on rising; a general good-for-nothing feeling.

11 A.M. Flush in head and face, with perspiration.

6 P.M. General dull heavy headache all day, with pallor of face; eyes tired and red.

Sensation of bearing down in the pelvic region, with a slight dragging pain from the sacrum.

April 25th. Have taken no medicine to-day, but have the same dull headache, pale face, tired and reddened eyes, and pelvic symptoms, as yesterday, with inactive bowels and constriction of the sphincter ani.

April 26th. Headache abating; pelvic symptoms increase; more weight and bearing down; more pain extending into the loins and down the thighs in front, with constriction of the sphincter, preventing any movement of the bowels.

April 27th. All the symptoms abated; those of the pelvic region lasted longest.

May 9th, 12.30 P.M. One dose Sepia, 3d trit.

9 P.M. Colic pain in upper part of abdomen, above umbilicus; abdomen hard and distended, as if with wind; soreness and pain in the back in sacral region; flatus in the abdomen.

May 10th. Abdomen hard and distended on rising, and tender to touch, with soreness and pain in the sacral region, and feeling of bearing down of all the pelvic organs; some pain in the forehead, with dryness and fine stinging in the mucous membrane of the nose, as from a cold in the head.

4 P.M. Took a dose of Sepia, 3d trit.

9 P.M. Darting pains in the vagina on left side, from below upwards. The same distension and hardness of abdomen as yesterday.

May 11th. Took a dose at 7 A.M. Slight colic pain during the day.

May 12th. Took a dose at 7 A.M.

10 A.M. Desire for, but unable to pass, a stool; intense constriction of the sphincter ani.

3 P.M. Hardness and tension of the whole abdomen, with flatus; occasional colic pains, weight, and bearing down in pelvic organs.

May 13th. A dose at 7 A.M. Weight and bearing down in the pelvic organs, and tension in the abdomen. Very difficult movement of soft, small stool, insufficient, with constant urging and inability; some flatulence.

May 14th, 7 A.M. A dose of Sepia, 3d trit. Pelvic and abdominal symptoms the same; pains in hips and thighs, extending to near the knees. Stool soft, small, insufficient, with great straining, followed by great heaviness in abdomen, and pain in pelvis and thighs from the straining.

May 15th. A dose at 9 A.M. Small, very difficult, very insufficient stool, with great urging and straining; severe constriction of sphincter ani. Some bearing down of pelvic organs. Other symptoms not marked.

May 16th. A dose at 11 A.M. Distension and hardness of abdomen; bearing down; urging to stool, with pressure and straining, but no evacuation; constriction of sphincter ani so intense as utterly to prevent stool.

May 17*th*, 8 A.M. A dose. Pain in the sacrum, and bearing down in pelvic organs, on rising in morning, with some yellowish leucorrhœal discharge. Urging to stool, with flatus, but no stool.

10 A.M. Leucorrhœa slightly bloody, and increased in quantity. Pain in abdomen and back, like pain of menstruation (no menses since last February). Constant urging to stool, with emission of flatus, but no stool. Some pain in the lower limbs, most in thighs.

9 P.M. Very slight stool; constant and severe urging. More profuse yellowish creamy or slightly bloody leucorrhœa; constant dull heavy pain in sacrum and abdomen, extending to thighs and legs.

May 18*th*, 7 A.M. A dose. Some pressure and bearing down after rising. Small, soft, insufficient stool; less urging. No leucorrhœa.

P.M. Some pain in sacrum and hips, not severe.

Evening. Slight yellow and somewhat bloody leucorrhœa, offensive slightly. More pain in abdomen, shooting downwards into right thigh. Less constriction of sphincter ani.

May 19*th*. No more Sepia. Pressure and bearing down in pelvis. Pain in back and sacrum. Weakness and aching in the thighs, especially when going upstairs. Some glairy, amber-colored, slightly offensive, occasionally bloody leucorrhœa; aching throughout abdominal and pelvic regions and thighs; pressure in rectum and constriction of sphincter ani gone, but no stool nor desire.

May 20*th*. Pain and weight in abdomen on rising in morning; pain in sacrum, extending through hips and thighs to below the knee, with weakness and lassitude when moving, especially going upstairs, as if limbs would refuse to act before reaching the top. Stool free, with little straining; abdomen distended and tender; slight frontal headache.

May 21*st*. Pain and tenderness in abdomen; pain most in back across hips; some bearing down; frontal headache and below temples; sanguineous leucorrhœa, in gushes, but not profuse.

NOTE BY PROFESSOR WESSELHŒFT.—"This patient (Miss

H . . .) has suffered from enlargement of the womb, 'a tumor cured by galvanism' at our hospital."

SEPIA.

Arrangement according to Hahnemann.

N.B.—In this arrangement the notation "1st d.," "2d d.," etc., means the first or second day, etc., after the beginning of the proving, without regard to repetition of doses.

Provers.

1. Miss E. F. S . . . . . , by Prof. A. K. Hills, M.D. Sepia^{200d}. Took two doses first day, one dose second day, two doses third day, one dose twenty-first day, ... Sw.
2. Miss Eliz. K . . . . , by Prof. A. K. Hills, M.D. Sepia, 200^{d}. Took one dose Nov. 10th, 1874; one dose Nov. 11th, one dose Nov. 16th, one dose Dec. 4th, ... K.
3. Prover not named. A widow with three children. Vouched for by Emma Scott, M.D.; by Prof. T. F. Allen, M.D. Sepia, 200^{d}. Took a dose every hour from 10 A.M. to 8 P.M., Jan. 5th, 1875; two doses Jan. 8th, two doses Jan. 12th, two doses Jan. 24th, ... S.
4. Mrs. A. G. S., by Prof. Wm. Owens, M.D. 30th trit. One dose 9 P.M., Dec. 9th, 1874; one dose 10 A.M, Dec. 10th; one dose 8 P.M., Dec. 19th, ... A. G. S.
5. Miss K. de G . . . , M.D., by Prof. Wm. Owens, M.D. 3d trit. A dose every night and morning for one week, beginning Dec. 5th, 1874, ... de G.
6. L. A. Snyder, by Prof. E. A. Farrington, M.D. Preparation not stated. A dose every three hours for two days, . Sn.
7. P. G. Souder, by Prof. E. A. Farrington, M.D. 30th trit. A dose every three hours from Oct. 31st, 5 P.M., to Nov. 1st, 10 P.M., ... So.
8. J. W. Bechtel, Jr., by Prof. E. A. Farrington, M.D. 200^{d}. A dose 2 P.M., Oct. 31st. 30th trit. A dose 2 P.M., Nov. 5th, ... B.
9. J. F. Frantze, by Prof. E. A. Farrington, M.D. 3d trit. A dose every three hours, beginning Nov. 1st. 30th trit. Began Nov. 5th, ... F.
10. C. F. Manson, by Prof. E. A. Farrington, M.D. 30th trit. and 200^{d}. Dates and repetition not given, ... M.
11. W. H. Tomlinson, by Prof. E. A. Farrington, M.D. 200^{d}. 2 P.M., Oct. 31st, 1874, to Nov. 3d, A.M.; and Nov. 5th at 3, 5, and 7 P.M.; and Nov. 6th till noon, ... T.

12. Wm. Dietz, by Prof. E. A. Farrington, M.D. 3d trit. Four or five doses daily, Nov. 2d, 1874, to Nov. 5th. 200d. Five or six doses daily, from Nov. 6th to 10th, 1874, . . . D.
13. Geo. H. Payne, by Prof. C. Wesselhœft, M.D. 30th trit. One grain night and morning, ... P.
14. A. H. Allen, by Prof. C. Wesselhœft, M.D. 30th trit. One grain A.M. and P.M., Nov. 15th, 1874, ... A.
15. H. M. Irwin, by Prof. C. Wesselhœft, M.D. 30th trit. One grain night and morning for three days, then every night, Nov. 15th to 30th, 1874, ... I.
16. B. A. Sawtelle, by Prof. C. Wesselhœft, M.D. 30th trit. One grain night and morning, Nov. 14th, 1874, . . . Sa.
17. W. W. French, by Prof. T. F. Allen, M.D. 200d. Every half hour all day, Jan. 11th, 1875. 30th trit. Every half hour, Jan. 16th and 23d, ... Fr.
18. Alfred Wanstall, by Prof. T. F. Allen, M.D. 30th trit. Every half hour to three hours all the time, Jan. 17th to 22d, 1875, ... W.
19. H. H. Tinker, by Prof. T. F. Allen, M.D. 30th trit. Every half hour, Dec. 15th, 1874, ... Ti.
20. S. P. Barchet, by Prof. T. F. Allen, M.D. 30th trit. Small dose every hour, Dec. 14th to 24th, 1874, ... Ba.
21. A. D. Sherman, by Prof. T. F. Allen, M.D. 30th trit. One grain every hour for a week, Dec. 10th to 17th, 1874. 30th trit. Five doses, one grain each, Jan. 14th, 1 to 5 P.M., . Sh.
22. Ed. Cranch, M.D., by Prof. T. F. Allen, M.D. 3d trit. Every half hour from noon, Dec. 17th, 1874; fifty grains Jan. 14th, 1875; seventy grains Jan. 15th, ... Cr.
23. Julia H. . . . , by Prof. C. Wesselhœft, M.D. 3d trit. One grain night and morning for four days, then omitted four days, ... Sm.
24. Mrs. M . . . . . , by Prof. Wesselhœft, M.D. 3d trit. A powder daily four days, ... Ma.
25. Miss C. E. H . . . . . , by Prof. C. Wesselhœft, M.D. 3d trit. Every night, a week, ... H.
26. Miss C. A. H . . . , by Prof. C. Wesselhœft, M.D. 3d trit. Four doses, one each morning, April 21st to 25th, and May 9th to 21st, ... Hu.

SENSORIUM.

Battling against gloomy feelings after a nap.—Sw.

From slight ill tidings (which would not at any other time have made the slightest impression), great mental depression, which increased until I grew so nervous that,

unless I held fast to something, I should scream. 1st d.—K.

I feel very low-spirited, and care not what becomes of me. 2d d.—K.

Great mental depression with headache all day (is usually better for a day's rest, but to-day the reverse); cannot collect his thoughts nor remember well-known events. 3d d.—T.

Mental depression continues till noon. 4th d.—T.

Much depressed, 7 A.M., 5th d. I feel like quarrelling with everybody; became much excited about a mere trifle, and said sharp things (ashamed of it at the time). 10 A.M., 6th d.—K.

5. Very cross and nervous, and throat very sore. 7 A.M., 7th d.—K.

Very irritable; don't want to talk or be talked to. 7 A.M., 9th d.—K.

Have been very irritable to-day; memory poor; can't remember anything; this makes me very miserable. 7 P.M., 34th d. and 35th d.—K.

Very nervous, with palpitation (2d d. of menses). 2 P.M., 74th d.—K.

I feel very nervous; hands and feet cold and clammy (never so before); nose pinched and cold; the rest of the body warm. At the same time, violent palpitation of the heart, as though it would force its way through the thoracic wall; relieved by walking a long distance and very fast. 1st d.—K.

10. Very cross; only lack a reasonable cause to vent my ill-humor. A.M., 3d d.—K.

Very nervous; nose cold and pinched. 3 P.M., 3d d.—K.

I feel irritable; it is hard to fix the mind on anything. A.M., 4th d.—Ti.

Could not keep my mind on books, nor follow the lecture; attention wandering; constant change of thoughts; moody feelings. 8th d.—Fr.

The same moody feelings, and restlessness, depression, and wandering mind, as on eighth day. 14th d.—Fr.

15. All day, I did not care what happened. 5th d.—Sa.
Mental dulness, afternoon (after three doses Sepia^{200d}). 5th d.—T.
Dulness of comprehension; cannot collect or express his thoughts; constantly building air-castles, or running on the future. 4th d.—So.
Mind inclined to wander over future events. 2d d.—So.
A heavy stupid feeling; aching in legs and ankles; sleepy; depressed in spirits; loss of ambition (towards evening). 1st d.—S.
20. Thickheaded; cannot remember what I knew yesterday; hard work to think or study; as if the mind were enervated, hedged in; cannot get out of a narrow line of thought; can't compare two things. 3d.—Ti.
No wish to study; mind not so clear as common. 5th d.—Ti.
Dull and heavy; things trouble me; cannot apply mind to study; keep thinking of other things; worrying about something all the time. 6th to 8th d.—Ti.
Language comes very slowly; I have to drag out the words to express my ideas. I forget the chief points. 12th to 23d d.—Ba.
She forgot she had her children to dress and provide for until nearly 10 A.M. 2d d.—A. G. S.
25. Ideas come very slowly.—Sw.
Known facts are recalled only by a tedious process of associating them with other known facts.—Sw.
Continuous wonderment of what could be the matter.—Sw.
When spoken to every idea flies from me, but returns clearly enough, if another person is addressed (even the same question). 1st d.—K.
Tried to study, but became nervous and confused; could not keep my mind on the subject; am much annoyed by those around me. 10 A.M., 4th d.—K.
30. Feeling very well, I began to write a letter; the ideas came quite naturally; on reading the letter I found everything was wrong; I had used wrong words and

expressions; I gave it up in disgust. 3.30 P.M., 5th d.—K.

I cannot collect my thoughts, nor answer the simplest question, which made me very unhappy; I wept, and felt better. 9th d.—K.

Greatly inclined to sing, and feel more cheerful than usual (for ten weeks).—de G.

Two slight dizzy turns in the afternoon (during menses). 20th d.—S.

While walking in the street, a sudden dizziness and feeling like a drunken person, as though the pavement were rising, lasting a few minutes. 5 P.M., 7th d.—S. (after two doses Sep., earlier in the day).

35. Dizziness on blowing the nose. 3d d.—Ti. Dizziness from least motion of head. 4th d.—Ba.

HEAD.

Strange feeling, as if just on the point of falling asleep.—Sa.

Sensation, as if the vertex were sinking in, with a pressure outward in the forehead.—Sw.

Great fulness of the head, with throbbing of the carotids, especially after an afternoon nap.—Sw.

Headache almost all night, and until noon to-day. 9th d.—S.

40. Headache on waking; better after moving about. 3d, 4th, and 5th d.—de G.

Dull, stupid, confused feeling through the head. 4th. d.—So.

A full feeling in the head; it feels dull and drowsy. 5th d.—F.

Headache all day, with great mental depression; cannot collect thoughts, nor recall well-known events (though resting all day). 3d d.—T.

Head felt swollen; relieved by lying down. 2 P.M., 1st d.—A.

45. Head dull and heavy; feels as if he had taken cold.—3d d.—T.

Headache all day. 4th d.—Ba.

He waked with dull headache, which ceased on rising. 29th d.—Cr.

Frontal headache and pain in the temples returned daily; worse morning, noon, and evening. 12th to 23d d. —Ba.

Dull and heavy over the eyes and in the forehead. 5th d. —Ti.

50. Heaviness in the forehead and temples; dizzy and unsteady feeling when rising to walk. 1st d.—Ba.

Slight frontal headache. 1st d.—So.

Dull frontal headache; the mind inclined to wander over future events. 2d d.—So.

Severe headache, beginning at the root of the nose and going to the temples. 4 to 5 P.M., till evening, 7th d. —Ti.

Fulness and pressure in the head (and burning heat in the throat); it gradually increased to a severe frontal headache; worse over the left orbit. P.M., 1st d.—P.

55. Dull pain over both eyes; it seemed to be in the bone. 9th d.—Fr.

Slight frontal headache during the day. 3d d. Dull frontal headache, left side. 4th d.—W.

Dull headache all day; backache, and pain across hypogastrium (menses appeared). 19th d.—S.

At noon (after two doses earlier) a dull pain over the forehead, extending from each temple; burning in the eyes, and soreness to touch, and desire to close the eyes. 18th d.—S.

Dull headache through both temples and forehead, with drooping of the eyelids. I felt as though I had not sense enough left to lift them. 2d d.—K.

60. Severe outward pressing pains in the temples, 6 P.M., till next morning, like the headache after strong coffee. P.M., 2d d.—I.

Pain from one temple to the other, like a pressing together. 4th d.—T.

Dull headache through both temples, and a tired feeling. 9 P.M., 29th d.—Cr.

Hot flush over face and head, lasting a few seconds, instantly followed by slight perspiration, and that by headache in the right side of the head and face; a surging like the beating of waves of pain against the frontal bone. 1st to 6th d., at intervals.—Hu.

Stitching pains in the temples; six sharp stitches in the left temple, at short and equal intervals, on lying down, 11 P.M.; three were very severe; also at anterior angle of parietal bone. 7th d. and 9th d.—Ba.

65. The head is heavy on the right side. 2d d.—Ti.

Severe headache from the right to the left temple, and extending to the eyes and nose; all seems raw. 2 P.M., 3d d.—Ti.

Neuralgic pain over the right eye (an old symptom, not felt lately). 8th d.—So.

On rising, boring pain over the right eye, and rheumatic pain in the region of the insertion of the temporal muscle in the coronoid process; relieved while eating, and for a few minutes after eating; worse on the right side, but extending to the left. 5th d.—B.

Heavy pressing pain over the left eye, extending towards the side of the head. 3.30 P.M., 1st d.—D.

70. Pain in the left side of the head over the left eye, in the afternoon, worse in the evening, keeping him long awake. 4th d.—Sa.

Headache confined to the left side, better in the evening and in the open air; worse by shaking the head; sense of great fulness, deep in the orbit, 4 P.M., 1st d.; headache slight on retiring, 11 P.M., continuing until 4th d.—D.

The left side of the head feels heavy, as if it would drop down. 2d d.—Ti.

Slight headache, pains running down the back of the head. 3d d.—S.

Waked with dull heavy feeling in the back of the head,

extending down the spine, ceasing in about an hour after rising. 18th d.—S.

75. Feeling as if the mass of the brain moved inside the cranium, on moving the head from side to side. 4th d.—Ba.

Sensation of coldness over the head during the night.—Sw.

Itching all over the scalp in the afternoon.—Sw.

EYES.

Dark rings around the eyes in the morning.—Sw.

Eyes hot and dry, A.M., 3d d.—K., and 11th d.—K. Congested and dry, A.M., 12th d.—K.

80. The eyes feel like balls of fire, especially the left, which is much injected. 2 P.M., 55th d.—K.

Both eyes heavy, with tendency to keep them closed; indisposed to mental labor, which aggravates the headache. 3d d.—D.

The eyes feel sore as if bruised. 4th d.—Ti.

Severe pains over the eye, alternating from one to the other; a swelling in the eyes, with burning and lachrymation, which relieves. 2d. d.—F.

In the evening, after walking, a sore, rough, burning feeling in the eyes, aggravated by gaslight and on attempting to read. 2d d.—Ti.

85. Sensation as if a heavy weight were attached to the eyeballs.—Sw.

Digging pains in the eyeball. 26th d.—Ba.

The right eye looks red and feels sore; the left normal. 3d d.—Ti.

Dull pain over the right eye and in the temple; shooting in the right ear.—3d d. Ti.

Transient aching pain over the right eye and going into the eye. 2d d.—W.

90. Great lachrymation from the right eye, on going into the open air, in the morning; ceasing when seated in a warm room; painless. 2d d.—Ba.

Woke at 7 A.M. with darting-pressing pain in the right eye; after a quarter of an hour it ceased in the right eye and

appeared in the left eye. Occasional darting pains from the left eye over the side of the head to the occiput. 7 A.M., 2d d.—D.

Left eyeball ached badly in the afternoon; sight dim as if a mist were before the eye; ceased in the evening, and then the head seemed stuffed. 3d d.—Sa.

Sense of great fulness deep in the left orbit; headache on the left side, worse from shaking the head, better in the evening and in the open air. 4 P.M., 1st d.; continued 2d and 3d d.—D.

Transient aching in the left eyeball. 4th d.—W.

95. Twitching of the orbicularis palpebrarum, with palpitation, relieved by going into open air. 11 A.M., 36th d.—K.

Heat and dryness of the margins of the lids.—Sw.

Great itching of the margins of the lids.—M.

Slight soreness of the outer corner of the left upper eyelid; slight itching of the inner surface. 5 P.M., 6th d. Worse on 7th d.—So.

Lid much swollen; eye half closed; swelling beneath the lower lid, œdematous as from a bee-sting; the lid sore to touch and on closing the eye; slight itching of the inner surface, causing the eye to water. 8th d.; better on the 11th d.—So.

100. Œdema of the lower lids in the morning.—Sw.

Drooping of the eyelids; I felt as if I had not sense enough left to lift them. 2d d.—K.

During the lecture, the eyes felt as if they would draw within themselves, and the lecturer seemed to very slowly recede and to be a great distance from me; not relieved by rubbing the eye; it ended in nausea. 11 A.M., 9th d.; the same on 10th d. It made me nervous.—K.

Distressing pain from bright or reflected objects, causing giddiness.—Sw.

Black spots before the eyes all day, passing in all directions. 2d d.—K.

105. Pustules on the conjunctiva of the left eye; no pain; a mist gathers before the eyes, and objects float in it, like tadpoles, with their heads towards the centre of a circle

and their tails radiating. 7 A.M., 56th d.; better 11 A.M., and worse 2 P.M., with nausea.—K.

The same at 7 A.M., 57th d., with relief at 11 A.M., and aggravation with pain at 2 P.M.; better 58th d.; well 59th d.—K.

EARS.

Earache, with cold sensation all over the head, relieved by warmth and sleep.—Sw.

Dull pain through both ears, from within outward, while walking in the cold wind (never had earache before). 4.30 P.M., 2d d.—K.

Dull and dragging pain in both ears, while walking in the wind; the pain passed forward into the parotid gland, and backward into the mastoid process; relieved by the warmth of the room. 5 P.M., 3d d.—K.

Earache from being in the open air, relieved when entering a warm room. 5 P.M., 6th d.—K.

110. Earache when walking out of doors; relieved in the house. 5 P.M., 8th d.—K.

Both ears feel as if plugged up; somewhat deaf. 7th d.—Ti.

Earache in the right ear, after midnight, from walking in the wind the evening before.—Sw.

Pain shooting into the right ear, and a dull pain over the right eye and in the right temple. 3d d.—Ti.

Stitching pain through the left parotid gland. 9.30 A.M., 9th d.—K.

NOSE.

115. Nose cold and pinched. 3 P.M., 2d d.; ditto, and very nervous. 3 P.M., 3d d.—K.

Profuse nosebleed, four during the day, a bright-red flow, suddenly coming and suddenly ceasing. 3d d.—Sn.

Profuse nosebleed several times; an intolerable itching inside of the nose, which is made sore by scratching. 2d d.—F.

Severe headache, beginning at the root of the nose and going to the temples. 4 to 5 P.M., till evening, 7th d.—Ti.

Nose dry; every symptom of cold in the head, 2 P.M., 1st d.; later, nose is stuffed. 1st d.—A.

120. Watery colorless mucus from the nose; slight frontal headache passing around the right side to the occiput; the voice like that of a person with cold in the head. Evening, 1st d.—A.

The anterior and posterior nares and pharynx feel as if they were skinned, most on the right side. A thick yellow discharge from the right side, and the finger introduced into the nostril becomes bloody. A kind of excoriated feeling in the nostril as after snuffing persulphate of iron. 3d d.—Ti.

Profuse yellow discharge from the nose, and, after rising, nosebleed. A.M., 4th d.—Ti.

Throat, nose and all feel raw, as if skinned and sore.

Thick yellow discharge from the nose. 7th d.—Ti.

125. On blowing the nose, blood mixed with mucus. 8th d.—Ti.

Soreness and burning in the alæ nasi; stuffed right nostril and slight watery flow. 1st d.—Hu.

On blowing the nose, dizziness. 3d d.—Ti.

The skin of the nose is peeling. 44th d.—Ba.

Plugs in the nose.—Sw.

130. In coryza the nose was stopped up at night, especially the right nostril.—Sw.

Sores on the septum narium.—M.

Sore bruised feeling on the right side of the median line of the tip of the nose and of the chin, 6th d.; increased on 7th d.; the spot on the nose was quite red, but no point; it ceased later.—T.

Around the right ala nasi it feels raw and sore; the discharge from that side is thick and yellow. It seems as if the posterior nares were sore. 3d d.—Ti.

Tingling sensation in the left side of the nose; a strong inclination to sneeze, but cannot, A.M., 3d d.; relieved at 10 A.M.—K.

135. Left nostril and left side of tongue and throat covered with small vesicles. 7 P.M., 5th d.—K.

The left ala nasi is getting quite sore; but there is no catarrh. 26th d.—Ba.

Increased acuteness of smell.—Sw.

°Ulcerated nostrils, which had troubled her for weeks, are relieved (curative action?). 2d d.—de G.

FACE.

Stitching pain through the left parotid gland. 9.30 A.M., 9th d.—K.

140. Face flushed; nose dry; every symptom of cold in head; sleepy; relieved by lying down; head felt swollen. 2 P.M., 1st d.—A.

Flushed face; quick pulse (100–110) and dull frontal headache (with deep pain over the spleen, etc.). 2 P.M., 2d d.—Sa.

Got up with rheumatic pain in the region of the insertion of the temporal muscle in the coronoid process, and boring pain over the right eye, relieved entirely while eating and for a few minutes after. 5th d.—B.

Sore bruised feeling in right side tip of nose and of chin, and sore bruised feeling in left elbow in region of ulnar nerve. 6th d.—T.

MOUTH.

The lips are cracking and feel very dry; no thirst. 5th d.—Ti.

145. A few vesicles appear on the right upper lip and are sore to the touch. 26th d.—Ba.

The tongue is sticky and coated a dirty yellow. A.M., 2d d.—K.

Tongue coated white; small white blisters inside of the cheek; the tip of the tongue feels as if scalded. Lips very dry.—M.

Tongue coated brown, with red edges. 5th d.—Ti.

Tongue coated yellow at the base and in the middle; tip and edges red. 7th d.—Ti.

150. Occasionally raised papillæ, accompanied by a sensation as if the tongue were burnt.—Sw.

Left side of the tongue covered with blisters. 5 P.M., 3d d.—K.

Left submaxillary gland and tonsil very much swollen. 5 P.M., 3d d.—K.

Tongue and throat much worse than yesterday. 10 A.M., 4th d.—K.

Left side of tongue and throat and left nostril covered with small vesicles. 7 P.M., 5th d.—K.

155. Tongue feels too large and as if scalded. 8 A.M., 12th d.—K.

Tongue coated yellow. Left side of tongue and mouth covered with vesicles, which cause a stinging pain. 28th d.—K.

Tongue clean. The vesicles have disappeared, but the left tonsil is swollen and covered with pustules. 7 A.M., 29th d.—K.

°Tongue clean and bright-red (naturally it has a yellowish-white coat), [curative action?].—Sw.

TEETH.

Shifting toothache.—Sw.

160. Teeth sensitive to cold air. 1st d.—W.

Shooting pain in second right upper molar. a. 1 h.—Ba.

Shooting, sharp pain in upper left bicuspids. 8 A.M., 32d d.—Ba.

Occasional sharp stitches in the upper incisors. 26th d.—Ba.

Shooting-stitching pain in the left molars from 11 A.M. to noon. 20th d.—Ba.

THROAT.

165. The throat feels as if it had been skinned. 3d, 4th, and 5th d.—Ti.

The mucous membrane felt dry and rigid, like a board; worse on lying after a nap and at 9 P.M.—Sw.

Feeling of rawness in the posterior nares, with dryness and rigidity in the throat below.—Sw.

Throat very sore; and I feel very nervous and cross. 7 A.M., 7th d.—K.

Throat sore and swollen. 49th d.—K. Throat and muscles very sore. 50th to 52d d.—K.

170. Fauces and throat bright-red.—Sw.

Throat and tongue (left side) and left nostril covered with small vesicles. 7 P.M., 5th d.—K.

Left tonsil much swollen and covered with pustules. 58th d.—K.

Throat and tongue covered with pustules.—58th d.—K.

Burning heat in the throat, with fulness and pressure in the head, P.M., 1st d.; worse the 2d d.—P.

175. Slight swelling of the right parotid gland. 3d d.—Ti.

°A sore throat ever since he had small-pox, eight years ago; is improving (curative effect?). 5th d.—Ba.

TASTE, APPETITE, THIRST, DIGESTION.

Water tasted insipid unless it was very cold.—Sw.

A very putrid taste, which causes nausea. A.M., 2d d.—K.

Taste altered; insipid. 3d d.—Ti.

180. Hungry feeling in the stomach very soon after meals (two hours); uncontrollable weariness. 30th d.—Cr.

Increased appetite.—Sw.

Hunger constant, mostly for sweets and meats, 3d d. The hunger for sweets lasted ten weeks.—de G.

Appetite (generally good) impaired during the proving.—B.

No desire for food; a sense of nausea all the morning. 5th d.—Ti.

185. Craving for food; feeling of goneness, chiefly in stomach, etc. 1st and 2d d.—Ma.

Desire for acids.

Disgust for tobacco, after smoking.—M.

The usual dislike for milk was completely overcome.—Sw.

A great desire for water, drinking a glassful at a time (an unusual thing). 4th and 5th d.—S.

190. Exactly at 9 P.M. every day, a sudden and uncontrollable thirst, as though mouth, throat, and stomach felt dry

and parched, necessitating frequent sips of cold water. —Sw.

Drinks less than usual. 4th d.—Ti.

No thirst, even at mealtimes, though the lips are dry and crack. 5th d.—Ti.

°The usual unpleasant taste during the menses was entirely absent (curative effect?).—Sw.

Slight nausea after lunch. 5th d.—Ba.

195. Sour eructations. 9th d.—Ba.

Eructations of offensive sour-smelling gas. 1st to 6th d.—A. G. S.

STOMACH AND EPIGASTRIUM.

Intense burning and gnawing in the stomach at night, the pit of the stomach being sensitive to touch and pressure; relieved finally by slight eructations.—Sw.

Uneasy sensation in the stomach. 28th d.—K.

Pulsation, with soreness in the stomach, painful as a boil on walking; entirely removed by eating supper, yet not ameliorated in the slightest degree by eating dinner at noon.—Sw.

200. A bloated, uncomfortable feeling around the waist. 2d d.—S.

Feeling of goneness, principally located in the stomach; craving for food; disposition to take a long breath; weight in the chest; everything seems an exertion. 1st and 2d d.—Ma.

Hungry feeling in stomach very soon after meals (two hours); uncontrollable feeling of weariness. 30th d.—Cr.

A sharp pain under the ensiform cartilage, as if a nerve were made tense, in a spot as large as the finger end; worse from inspiration and from going upstairs. 28th d.—Sh.

ABDOMEN.

Feeling of crowding and fulness in the abdomen.—Sw.

205. Great weight, with a dragging sensation.—Sw.

Pressure in the abdomen, as of a load.—Sw.

Abdomen very much distended after the least bit of food; relief, at first, from loosening the clothing, but the distension soon returned, causing more distress than before, as this seemed to give the abdomen more room to expand. 2d d.—K.

Abdomen tympanitic. 4 P.M., 4th d.—K.

Abdomen bloated after the least bit of food; not relieved by discharge of flatus. 13th, 14th, and 15th d.—K. Not so much bloated. 16th d.—K.

210. Pain, with sense of fulness and soreness, all over the bowels. —de G.

Bloated feeling in the abdomen, coming on about a quarter of an hour after eating, and lasting half an hour. 8 P.M., 4th d.—So.

Throughout the proving, a feeling of distension of the abdomen, coming on shortly after eating, especially supper. —So.

Distension, hardness, and tenderness of the abdomen.—Hu.

Waked 4 A.M. with a sense of fulness in the epigastric region; felt warm all over; sweat on chest and neck, as if the veins were full and ready to burst, and as if she could not move. 1st d.—A. G. S.

215. Feels as if the abdomen were bloated, especially across the epigastric region; a sense of drawing, as if a worm or other animal were moving there. 1st d.—A. G. S.

The sense of fulness in the abdomen lasted five days, with languor and eructations of sour-smelling gas. 1st to 6th d.—A. G. S.

Feeling as of a load resting across the epigastrium, eight hours after third dose. 10th d.—A. G. S.

Slight pain in the region of the transverse colon, followed by stool; four stools during the day, with slight pain and tenesmus, after twelve hours.—de G.

Pain in the region of the transverse colon continues; stool every two hours. 2d d.—de G.

220. After stool, which is difficult, consisting of small lumps, a severe stitching pain in the transverse colon, beginning

in the splenic flexure, and passing to the hepatic flexure, and there passing off very slowly; much aggravated by walking, but relieved by sitting down. 1st d.—K.

Soreness around the umbilicus on pressure, particularly on the right side.—Sw.

Great dragging in the right side. A.M., 5th. d.—Ti.

Burning pains in (different parts of the body, and especially in) the lower part of the left hypochondriac region.—M.

Severe pain in a circumscribed spot, about one and a half inch diameter, immediately over the spleen, *deep*, lasting till 7 P.M.; I then began to have flushed face, quick pulse (100 to 110), and dull frontal headache; about 4.30 P.M., felt very hungry, and after eating a little, felt satisfied; the stomach felt full. The pain was relieved after eating, but I felt sleepy, and slept till 7.30 P.M. On waking, a dull aching pain in the left lumbar region, lasting all night. 2 P.M., 2d d.—Sa.

225. Bloated feeling in the lower part of the abdomen, with dull aching in the ovaries, and heavy feeling in the head, with sleepiness. 4th d.—S.

Some griping pains in the lower part of the abdomen, ceasing at 10 A.M. 10th d.—S.

Every night, on retiring, a pain across the hypogastrium, relieved by passing wind; felt only when lying down. 12th to 16th d.—S.

While at breakfast, a cutting pain in the hypogastrium, with imperative urging to stool, and a free, loose evacuation. 5th d.—B.

Fulness and pressure in the hypogastric region, as though the contents would fall out over the symphysis pubis, with desire to press them back; relieved by hard pressure.—Sw.

230. Sense of fulness in the right inguinal region, transient. 1st d.—Ti.

Pulling pain in the right iliac region near the crest. 10 P.M., 4th d.—Ti.

Pustules in the right groin and between the coccyx and

anus. They feel hard like shot. 59th d.—K. Those in the groin very painful. 60th d.—K.

Pustules forming on the crista ilii from the spine to the middle of each bone. 61st d.—K. Very painful, making me irritable. 61st d.—K.

Pustules indistinct on the body; throat and eyes again affected. 63d d.—K.

STOOL.

235. Constipation, with urging to stool (no stool for three days); while at stool a painful, raw sensation in the anus. 5th d.—Ti.

Suffered from constipation, which caused bleeding, and weight, and pain in the rectum. 22d d.—S.

During ten days (29th to 39th of the proving) suffered much from constipation and from piles, with severe pain across the lower part of the abdomen, extending down the inside of the legs, and feeling sore to the touch; at times unable to stand; loss of ambition.—S.

Small, difficult, insufficient, infrequent stool, owing to severe constriction of the sphincter ani, *throughout latter part of proving.*—Hu.

Ineffectual urging to stool, 9 P.M.—Sw.

240. Sudden call to stool at the appearance of the menses. The stool was yellow, small, and soft, with tenesmus and bearing down afterward.—Sw.

Desire for stool; it felt as though she had lost all expulsive power; only small, hard lumps passed, without relief. After the stool, severe sticking pain in the transverse colon, beginning in the splenic flexure and passing to the hepatic flexure, and then passing off slowly; much aggravated by walking, but relieved by sitting down. 1st d.—K.

Passed much flatus from the rectum and vagina without relief. 2d d.—K.

Urging to stool, but passed very little; am not constipated, but seem to have lost power. 6 P.M., 9th d.—K.

Constipated; pimples appear on cheeks and wrists third day; constipated ten weeks.—de G.

245. Urging to stool, which is scanty and difficult. 3d d.—W.

Hard, difficult stool at night. 6th d.—W.

No stool since began the proving. 3d d.—Ti.

Painful urging to stool which was hard and in lumps; and considerable bleeding from the rectum after stool. 6 A.M., 45th d.—K.

Three stools to-day. 31st d.—K.

250. Bowels moved twice (first day of menses). 38th d.—K.

Bowels moved freely and without pain. 7 and 10 P.M., 45th d.—K.

Two stools to-day. 8 A.M. and 10 P.M., 60th d.—K.

Three stools. 69th d.—K.

Two stools. 80th d.—K.

255. Hard stool, fæces covered with slime, at 6 P.M.; followed by slimy, bilious, or catarrhal stools at 8 and 11 P.M., 1st d.—A. G. S.

Stool four times during the first day, with slight pain and tenesmus, and stool every two hours during the second day until afternoon; natural; but, toward night, diarrhœa with tenesmus before and after stool; burning of the anus after stool and feeling of intense bearing down at the anus. 2d d.—de G.

Free and loose stool, preceded by cutting in the hypogastrium and imperative desire. 5th d.—B.

Small, soft stool. A.M., 4th d.—W.

Natural stool daily (previous condition not stated).—Sw.

RECTUS AND ANUS.

260. Tenesmus in the rectum, with dull pain in lumbar region; passed a great deal of flatus all day, which did not relieve. 1st d.—K.

Considerable bleeding from rectum after a hard lumpy stool, with painful urging. 6 A.M., 45th d.—K.

Burning of the anus after stool and feeling of intense bearing down at the anus. 2d d.—de G.

Stitching in the anus as from a stick.—M.

Excoriated feeling about the anus. A.M., 4th d.—Ti.

Intense constriction of the sphincter ani, *latter part of proving.*—Hu.

265. Having been constipated for two days, I now feel a sudden, violent aching in the anus, relieved by fast walking, and ceasing entirely as soon as the fæces begin to pass. 30th d.—Cr.

URINARY ORGANS AND FUNCTION.

Frequent micturition.—Sw.

Micturition every hour through the day; no change from the normal state during the night.—Sw.

A feeling of fulness in the bladder, which could not be endured.—Sw.

Copious discharge of urine. 5 A.M., 1st d.—K.

Urine normal but copious. 1st d.—K.

270. Passed very little urine to-day; but it was normal. 2d d.—K.

Stitches through the bladder a little while before urinating; the urine had a strong odor but no sediment. 7 A.M., 5th d.—K.

Pressure to urinate and sharp pain in each ovary; pain ceased after urinating. 1st d.—S.

Urinates more often than is habitual. 9th d.—S.

Urine slimy, thick, and very offensive; yellowish pasty sediment next morning. 2d.—A. G. S.

275. Ineffectual desire to urinate. 11 A.M., 4th d.—So.

Smarting in urethra while urinating; urine offensive, deep-red deposit. 8th d.—Fr.

Loose brickdust sediment, rolling about like sand.—Sw.

°The usual light-colored sediment, adhering to the vessel, was entirely absent during the proving [curative effect?].—Sw.

Urine during Proving.	Normal Urine of Prover.
Amber-colored, slightly turbid.	Amber-colored, slightly turbid.
Sp. gr. 1080.	Sp. gr., 1028.
Strongly acid.	Acid.
Bile pigment present.	No bile pigment.
Decided proof of a large quantity of bile acid.—Sw.	Slight trace of bile acid.—Sw.
280. Sp. gr., 1028, 2d d.; 1025 4th d.; 1025, 8th d.; 1025, 10th d.; 1030, 12th to 17th d.—S.	Average sp. gr., 1024.—S.
1st d., 20 ounces; sp. gr., 1027; on standing, it grew cloudy and deposited white sediment. 2d d., 23 ounces; sp. gr., 1022; 3d d., 24 ounces, sp. gr., 1024. Clear, no sed. 4th d., 23 ounces; sp. gr., 1021; 5th d., 24 ounces; sp. gr., 1024. No change in color. 6th d., 26 ounces; sp. gr., 1024; 7th d., 19 ounces; sp. gr., 1028 (after Sepia[30]). On standing, a brickdust sediment, and vessel covered with white substance and looking like ground-glass. Bad dreams, etc. 8th d., 19 ounces; sp. gr. 1027. Urine has bad odor; red deposit of a deeper color. Smarting in the urethra while urinating. 9th d., 22 ounces, sp. gr, 1023. No sediment. 10th d., 24 ounces; sp. gr., 1022; 11th d., 28 ounces; sp. gr., 1022; 12th d., 31 ounces; sp. gr., 1021. No sediment; looks healthy. 18th d. (having resumed Sepia[30]). At noon passed urine which was clear; sp. gr. 1026. On standing 4 hours it deposited a brickdust sediment, and the walls of the glass were coated white. The same restless feelings as on 8th d., but no pain.—Fr.	Dec. 2d to 22d, 1874, average quantity, 28 ounces; average sp. gr., 1022. Jan. 6th to 11th, 1875, average quantity, 80¾ ounces; average sp. gr., 1022.—Fr.
1st d., 9 A.M., 9 ounces, sp. gr. 1028; 2 P.M., 9 ounces, sp. gr. 1022; 7 P.M., 10 ounces, sp. gr., 1024; midnight, 10 ounces, sp. gr., 1024; total, 38 ounces. 2d. d, 9 A.M., 8 ounces, sp. gr. 1027; 2 P.M., 6 ounces, sp. gr., 1027; 7 P.M., 7 ounces, sp. gr., 1028; midnight, 8 ounces, sp. gr., 1028; total, 29 ounces. 3d d., 9 A.M., 9 ounces, sp. gr., 1028; 2 P.M.,	

URINE DURING PROVING.	NORMAL URINE OF PROVER.
7 ounces, sp. gr., 1026; 7 P.M., 7 ounces, sp. gr., 1032; midnight, 4 ounces, sp. gr., 1025; total, 27 ounces. 4th d. 9 A.M., 9 ounces; sp. gr., 1025; 2 P.M., 6 ounces, sp. gr., 1027; 7 P.M., 7 ounces, sp. gr., 1027; midnight, 8 ounces, sp. gr., 1031; total, 30 ounces. 5th d., 9 A.M., 8 ounces, sp. gr., 1028; 2 P.M., 7 ounces; 7 P.M., 7 ounces, sp. gr., 1026; midnight, 7 ounces, sp. gr., 1032; total, 29 ounces. 6th d., 9 A.M., 8½ ounces, sp. gr., 1026; 2 P.M., 7 ounces; 7 P.M., 9 ounces, sp. gr., 1021; midnight, 11 ounces, sp. gr., 1022; total, 36½ ounces. 7th d., 9 A.M., 18 ounces, sp. gr., 1024; 2 P.M., 7 ounces; 7 P.M., 10 ounces, sp. gr., 1024; midnight, 4 ounces, sp. gr., 1032; total, 34 ounces.—W.	
3d d., sp. gr., 1030; dark-red, less quantity, passed only three times. 4th d., A.M., sp. gr., 1030; P.M., 1030; three times, 6 ounces each time. A yellowish-red deposit adheres to vessel; urine brick-red in color. 5th d., A.M., and P.M., sp. gr. 1030. Very scanty, deep-red. No desire to urinate; pass but little at a time. 6th d., sp. gr., A.M., 1030; P.M., 1025; as on 5th d. 7th d., sp. gr., P.M., 1025. Very scanty; red deposit on side of glass. 8th d., sp. gr., A.M., 1022; noon, 1030. Urine very high-colored; it looks like powdered brick. The urine remained dark-red until the 23d d.—Ti.	Average quantity, 6 ounces five times in twenty-four hours. Normal color; no sediment. Nov. 4th, 1874, sp. gr., 1020. Nov. 5th, sp. gr., 1030, P.M. Nov. 6th, sp. gr., 1030, P.M. Nov. 7th, sp. gr., 1030, P.M. Nov. 8th, sp. gr., A.M., 1022; P.M., 1028. Nov. 9th, sp. gr., A.M., 1020; P.M., 1030. Nov. 10th, sp. gr., A.M., 1022; P.M., 1020. Nov. 11th, sp. gr., P.M., 1030. Nov. 12th, sp. gr., P.M., 1030. Nov. 13th, sp. gr., P.M., 1030. Nov. 14th, sp. gr., P.M., 1028. Nov. 15th, sp. gr., A.M., 1022; P.M., 1029.—Ti.
Smarting pain in urethra 1st d. 2d d., sp. gr., A.M., 1022; P.M., 1026. 4th d., sp. gr., A.M., 1024; P.M., 1032. 5th d., sp. gr., A.M., 1022; P.M., 1028. Sharp pain along canal of urethra. 6th d., sp. gr., A.M., 1024; P.M., 1030. Urine high-colored; quickly gets turbid, and stains bottom of vessel. Occasional stitches	Nov. 7th, sp. gr., A.M., 1022; P.M., 1005 (from eating sour orange). Nov. 8th, sp. gr., A.M., 1012; P.M., 1026. Nov. 9th, sp. gr., A.M., 1026; P.M., 1028. Nov. 10th, sp. gr., A.M., 1020; P.M., 1022. Nov. 11th, sp. gr., A.M., 1022; P.M., 1022. Nov. 12th, sp. gr., A.M., 1022; P.M., 1022. Nov. 13th, sp. gr., A.M., 1022; P.M., 1012. Nov. 14th, sp. gr., A.M., 1020; P.M., 1024. Nov. 15th, sp.

Urine during Proving.	Normal Urine of Prover.
along urethra. 7th d., sp. gr., A.M., 1024; P.M., 1030. 8th d., sp. gr., A.M., 1028; P.M., 1030. Smarting and tingling pain in the urethra. 9th d., sp. gr., A.M., 1026; P.M., 1032. 10th d., sp. gr., A.M., 1024; P.M., 1026. 11th d., sp. gr., A.M., 1022 (ceased to take Sepia). 28th d., sp. gr., A.M., 1028; P.M., 1030. 29th d., sp. gr., A.M., 1030.	gr., P.M., 1012. Nov. 16th, sp. gr., A.M., 1024; P.M., 1026. Nov. 19th, sp. gr., P.M., 1028. Nov. 20th, sp. gr., A.M., 1022; P.M., 1028. Nov. 21st, sp. gr., A.M., 1022; P.M., 1026. Nov. 22d, sp. gr., A.M., 1020; P.M., 1012. Nov. 23d, sp. gr., A.M., 1014; P.M., 1028. Nov. 24th, sp. gr., A.M., 1020; P.M., 1016. Nov. 25th, sp. gr., A.M., 1014; P.M., 1024. Nov. 26th, sp. gr., A.M., 1020. Nov. 28th, sp. gr., A.M., 1018; P.M., 1028. Dec. 10th, sp. gr., A.M., 1024; P.M., 1026. Dec. 11th, sp. gr., A.M., 1020; P.M., 1026. Dec. 12th, sp. gr., A.M., 1020. Dec. 13th, sp. gr., A.M., 1020; P.M., 1022. Dec. 14th, sp. gr., A.M., 1012.—Ba.
12th to 23d d., urine remained high-colored; became quickly turbid, and a fine reddish sediment was noticed, in the morning, in the urine passed the previous evening.	
38th to 40th d. (being 28–30 days after the last dose of Sepia) the quantity of urine was so small as to alarm me; not more than 8 ounces in twenty-four hours. Constant irritation, and desire to urinate.—Ba.	
285. 34th d., A.M., 8 ounces; noon, 18 ounces; 10.30 P.M., 10 ounces. Total, 36 ounces. Sp. gr., A.M., 1022; noon, 1015; 10.30 P.M., 1022. 35th d., A.M., 12 ounces; noon, 8 ounces; 10.30 P.M., 12 ounces. Total, 32 ounces. Sp. gr., A.M., 1020; noon, 1014; 10.30 P.M., 1022. 36th d., A.M., 9½ ounces; noon, 8 ounces; 10.30 P.M., 10 ounces. Total, 27½ ounces. Sp. gr., A.M., 1016; noon, 1020; 10.30 P.M., 1015. 37th d., A.M., 8 ounces; noon, 20 ounces; 10.30 P.M., 7 ounces. Total, 35 ounces. Sp. gr., A.M., 1015; noon, 1014; 10.30 P.M., 1024. 38th d., A.M., 9½ ounces; noon, 10 ounces; 10.30 P.M., 12 ounces (midnight, 4 ounces; 1016). Total, 35½ ounces. Sp. gr., A.M., 1020; noon, 1010; 10.30 P.M., 1016. 39th d., A.M., 10 ounces; noon, 11 ounces; 10.30 P.M., 10 ounces (midnight, 9 ounces; 1026). Total, 40 ounces. Sp. gr., A.M., 1018; noon, 1016; 10.30 P.M., 1024.—Sh.	

URINE DURING PROVING.

1st d., A.M., 48 ounces; sp. gr., A.M., 1029; P.M., 1022; began to take Sepia[3], noon. 2d d., A.M., 42 ounces; sp. gr., A.M., 1029; P.M., 1029; clear as usual. 3d d., A.M., 45 ounces; sp. gr., A.M., 1032; P.M., 1030. This urine deposited, after a few hours, a white filmy sediment on the sides of the glass, and on the rod left in it; not removable by water alone, nor by acetic acid, but by caustic potassa, ammonia, or nitric acid. A feeling of desire to urinate more urgent than common, and referred to the neck of the bladder. 4th d., sp. gr., A.M., 1031. The urine smells badly, and looks turbid. A slight, but decided tingling in the urethra, about an inch back from the head of the penis. 28th d. (after taking 25 grains Sepia[3]), urinated freely (after 15 grains more) 2 ounces urine, sp. gr., 1031, which, the next morning, presented the following appearances: Reaction slightly acid; deposit of white adherent film; sediment slightly pinkish; readily dissolved by moderate heat (not by a few drops of Nitric acid); showing under microscope amorphous particles, and on standing a long time (forty-eight hours) crystals of uric acid. According to G. Bird, this deposit must consist of urates of soda, potassa, ammonia, and magnesia. 29th d. (took 70 grains Sepia, 3d trit.), 8 A.M., 12 ounces; sp. gr., 1029; noon, 9 ounces; sp. gr., 1028. Total urine, 53 ounces (a very cold day). Heavy white deposit next morning, as on 28th d. 30th d., 8 A.M., 15 ounces; sp. gr., 1021. Tingling in urethra, which lasted several days; slight aching in neck of bladder after urinating; and tingling in the urethra.—Cr.

NORMAL URINE OF PROVER.

Urine clear, amber-colored, acid, free from sediment, film, or cloud, passed about every six to eight hours. Average daily quantity 45 ounces. Average sp. gr., A.M., 1029; P.M., 1022.—Cr.

MENSTRUATION.

Menses delayed two days.—Sw.

Menses, which usually continue five days, last only three days; the flow, towards the last, ceasing for the night and part of the forenoon, and then reappearing; color normal, bright blood.—Sw.

Menses began one week too soon; no pain; 10 P.M., 5th d.; the flow scanty, dark, and fetid. 7 A.M., 6th d.—K.

290. Menses began [32d day from beginning of the previous period, which was a week too soon], dark and clotted, with severe uterine cramps all night, with short intervals of relief; much nausea; two stools. 10 P.M., 38th d.—K.

Menses scant all day; uterine cramps when moving about, relieved by lying down. 10 P.M., 39th d.—K. and 40th d.

Menses scanty, membranous and very painful, 41st d.; better 42d d.; well, 43d d.—K.

Menses began [35th day from beginning of the previous period, which was 32 days from the beginning of the period preceding it, and which was *a week too soon*] 10 P.M., 73d d.; scanty, pale, and very acrid. 75th d.—K.

Menses began; bloated uncomfortable feeling around the waist, and, towards night, a sleepy, stupid feeling. 2d.—S.

295. On stepping out of bed, the menses came on; the blood running down to the feet; flowed freely; menses were not yet due. 19th d.—S.

Flowed freely all day and felt badly; headache. 20th d.—S. [Before the proving, this prover's menstruation was scanty and dark, though regular. Under the action of Sepia, the flow increased and was brighter in color.]

Menses anticipated, one day the first month, two days the second month; afterwards they were normal. Pimples on the cheeks just before and during menstruation. 85th d.—de G.

Menses appeared in the morning, accompanied by a sudden

call to stool, driving her out of bed; stool small, with rectal and vaginal tenesmus.—Sw.

All night before the appearance of the menses, restlessness with turning and tossing.—Sw.

300. During the menses, all the pelvic distress was aggravated, with weakness in the stomach and sensation of hunger; also a feeling as if weights were attached to the eyes.—Sw.

During the menses great soreness and aching in the locality of a previous congestion of the liver; so sore as to hinder moving or turning.—Sw.

°The customary drowsiness during the menstrual period was absent during the proving. [Curative effect?].—Sw.

GENITAL ORGANS, MALE.

A seminal emission waked him from a lewd dream. 3d d.—B.

Seminal emission during the night; no dream; unconscious of it until morning. 7th d. (12 hours after 2d dose.) —B.

305. Sharp stitching pain in the prepuce and frænum preputii, and a smarting raw feeling; the integument was congested. 12th and 13th d.—T.

(Soon after a dull pain in the right upper thorax) a boring pain in the point of the left testicle, followed by a constant pain in the right groin, near Poupart's ligament. The pains in the chest and testicle came and went at short intervals. 10.45 P.M., 15th d.—I.

PELVIS, MALE.

A singular sensation; a sort of weakness about the centre of the back, pubic bones, and around the anus; a dragging pain. 4 P.M., 3d d.—Ti.

GENITAL ORGANS, FEMALE.

Repeated sharp, shooting pain in the right ovarian region. —Sw.

Steady dull ache in the ovary, aggravated by every inspiration.—Sw.

310. Severe stitching pain through the left ovary. 4 P.M., 4th d.—K.

Stitching pain through the left ovary and acetabulum; she can hardly bear it. 4.30 P.M., 5th d.—K.

Sharp pain in each ovary, and pressure to urinate; the pain ceased after urinating. 1st d.—S.

Later in the day a dull, heavy pain in the left ovary. 1st d.—S.

Dull aching in the ovaries, with bloated feeling in the lower part of the abdomen, heaviness of the head, and sleepiness. 4th d.—S.

315. A pressure and heavy weight in the ovaries, and a pressure to urinate [within an hour after a dose of Sepia; increased at noon after a second dose]. 7th d.—S.

Dull, heavy pain in the lower part of the ovarian region, and pressure to pass water. [Had taken no Sepia for four days.] 11th d.—S.

During the menses, pain in the ovarian region, running down to the uterus, as from a string drawn too tight. —Sw.

Sensation as if the vulva were enlarged.—Sw.

Occasional shooting pains, followed by a spasmodic constrictive feeling at the vaginal orifice.—Sw.

320. Much flatus passed from the vagina and rectum without relief. 2d d.—K.

Sharp stitching pains passing up the vagina into the body of the uterus, somewhat relieved when bending double. Great dryness of the vulva and vagina, causing a disagreeable sensation when walking. [Menses having ceased, after flowing three days.] 11 A.M., 10th d.—K.

Shooting pain, beginning in the cervix and passing up to the fundus uteri, and thence to the right ovary, so severe as to cause nausea. 7 A.M., 34th d.; also on 35th d., with likewise dull pain in the sacrum.—K.

Severe pain in the uterus and left ovary. 7 A.M., 6th d.—K.

Uterine pains very severe; the uterus feels as if it were

clutched and then suddenly released, causing nausea. 7 P.M., 5th d.—K.

325. Severe uterine cramps, all night, with short intervals of relief, and nausea, at the beginning of the menses. 10 P.M., 38th d.—K.

Severe uterine cramps, palpitation, cold feet and hands. 7 A.M., 73d d.—K.

The uterine cramps increased in severity at 11 A.M., so that she was compelled to go home; menses appeared at 10 P.M. [thirty-five days from the beginning of the previous period], but the pain continued until the next morning; relieved by stool. 8 A.M., 74th d.—K.

Lancinating pains in the uterus, shooting upwards.—Sw.

A few, sharp, flashing uterine pains.—Sw.

330. Pressure downwards, as though the contents of the pelvis would press through the vulva.—Sw.

Great distress in the uterus, with pressure downwards; worse in the afternoon, at 9 P.M., from long-continued lying and sitting, and better when moving about slowly. Some distress in the uterus at night, during waking intervals, relieved temporarily by the knee-elbow position or by hard pressure.—Sw.

Pelvic distress and pressure downward, better by lying on either side with the legs flexed on the thighs and the thighs on the abdomen.—Sw.

Severe pelvic pain, beginning in the sacrum, passing forward and down to the right knee. Pressing against something hard [pressing what part of the body?] relieved all the pain; crossing the limbs relieved the pelvic pain, but much aggravated the pain in the knee. 2d d.—K.

Bearing down in the pelvic region, and dragging pain from the sacrum, 2d d., Hu. [increasing as the proving goes on]; the dragging and weight extend into the loins and down the thighs in front, with soreness and distension of the abdomen and constriction of the sphincter ani, which prevents stool. 2d to 7th d.—Hu.

335. Aching in the small of the back at and after 9 P.M.—Sw.

Uterus congested, beginning to prolapse, slightly displaced. —S.

Prolapsus uteri, with inclination of the fundus to the left, producing numbness and aching in the pelvis and in the whole lower part of the left side of the body; relieved by lying down. The os uteri is tender. 28th and 30th. d.—Ma.

Yellowish leucorrhœa pouring from the uterus.—S.

Leucorrhœa glairy, creamy, yellowish, slightly offensive, and, at last, somewhat bloody, *last part of the proving.*—Hu.

MAMMÆ.

340. Mammæ sore and tender to the touch a week before the menses; even muscular exertion is painful.—Sw.

Mammæ have felt like boils, if touched, all day. 2d d.—K. [This is three days before the menses, which occurred a week too soon.]

LARYNX, COUGH, VOICE, ETC.

Paroxysms of coughing in the morning, with either very difficult expectoration or sputa copious and raised with ease.—Sw.

Harsh, distressing cough; worse on going from cold air to warm, and *vice versâ*. 20th d.—K.

Hard, dry, concussive cough, with tightness and constrictive sensation in the chest, lasting four or five days. This symptom recurred several times on taking Sepia[30]. —P.

345. Hoarseness; slight swelling of the right parotid gland. P.M., 3d d.—Ti.

THORAX.

Tightness and constrictive sensation in the chest; hard, dry, concussive cough, with increase of the burning heat in the throat, and fulness and pressure in the head and severe frontal headache, worse over the left orbit. 2d d.—P. This symptom lasted four or five days, and recurred several times on taking Sepia[30] again.—P.

Dull aching in the chest near the sternum, fourth and fifth ribs. 32d d.—Ba.

Speaking caused fatigue, if continued any time. Lungs slightly sore; no cough nor sputa.—K.

Inclination to sigh. 2d d.—F.

350. Sharp piercing pain in lower lobe of right lung, in paroxysms, very severe. 30th d.—Ma.

Lungs very sore; harsh, distressing cough; worse on going from cold to warm air, and *vice versâ*. 20th d.—K.

On retiring, and about ten minutes after taking Sepia, a dull pain in the right upper chest, soon followed by a boring pain in the point of the left testicle; this was followed by a pain in the right groin near Poupart's ligament. The latter was constant; the former symptoms came and went at short intervals until I slept. 10.45 P.M., 15th d.—I.

Sharp shooting pain in the left lung on expiration.—Sw.

Aching under the left scapula, reaching into the lung, worse on expiration.—Sw.

355. Stitching pain in the left lung and in the third toe of the right foot at the same time, lasting a few seconds. 10th d.—B.

Dull pain in the upper lobe of the left lung. 2d d.—Ba.

Sharp pain in the left side near the heart in the middle of the afternoon and again about 10 P.M., 9th d.—S.

Heart's impulse and rapidity increased, especially during inspiration. 28th d.—Sh.

Sensation as if the heart only [alone?] occupied all the cavities of the body, with labored, muffled beating.—Sw.

360. Violent palpitation, as though the heart would force its way out through the thoracic wall, relieved by walking far and fast; with nervous feelings, cold and clammy hands and feet, cold and pinched nose, etc. 3 P.M., 1st d.—K.

Palpitation of the heart. 10 A.M., 3d d.—K.

Another attack of palpitation; I am very nervous. 8 P.M., 3d d.—K.

Severe palpitation, preceded by chilliness and nausea, and accompanied by twitching of the orbicularis palpebrarum; relieved by going into the air: 11 A.M., 36th d.—K.

Palpitation, with uterine cramps, thirteen hours before menses appear. 73d d.—K.

365. Another attack of palpitation; am very nervous (second day of the menses). 2 P.M., 74th d.—K.

Aching between the scapulæ.—Sw.

RADIAL PULSE.

During the Proving.	Normal for the Prover.
Average pulse: A.M., 88; M., 83; P.M., 79.—Sw.	Average pulse: A.M., 90; M., 74; P.M., 78.—Sw.
1st d., 70. 2d d., 85. 3d. d., A.M., 88. P.M., 86.—K.	Average pulse, Dec. 2d to 22d, 1874: A.M., 66; P.M., 54. Average pulse, Jan. 6th to 11th, 1875: A.M., 60; P.M., 55.—Fr.
3d d., A.M., 90; P.M., 80. 4th d, A.M., 82; P.M, 80. 5th d., A.M., 80; P.M., 75. 6th d., A.M., 74; P.M., 75. 7th d., 1 P.M., 80; 6 P.M., 74. 8th d., A.M., 74.—Ti.	Nov. 4th, A.M., 84; P.M., 80. 5th, P.M., 84. 6th, A.M., 83; P.M., 80. 7th, A.M., 80; P.M., 78. 8th, A.M., 72; P.M., 78. 9th, A.M., 76; P.M., 78. 10th, A.M., 75; P.M., 75. 11th, A.M., 76; P.M., 72. 12th, A.M., 73; P.M., 78. 13th, A.M., 74; P.M., 77; 14th, A.M., 73; P.M., 75. 15th, A.M., 74; P.M., 72.—Ti.
2d d., 8 P.M., pulse 100 to 110.—Sa.	

BACK.

370. Trapezius muscles very sore; can hardly turn the head; neck very sensitive to touch. 49th to 52d d.—K.

Stiffness of the back of the neck. 2d d.—F.

Drawing and expanding pain in the side of the neck. 5th d.—F.

Radiating pain up the back of the neck and occiput *three or four days after the last dose.*—M.

Constant aching in the back of the neck, right side, second day, generally better in afternoon after dinner.—W.

375. Dull, tired pain in the right shoulder and muscles of the back of the neck on the right side; worse on bending the head to the opposite side. A feeling of tension in

the neck, and weakness of the right wrist on using the hand. 1st to 4th d.—W.

Dull drawing in the suprascapular region.

Pain constantly between the shoulders and down the back. 2d d.—F.

Aching between the scapulæ.—Sw.

Aching under the left scapula, reaching into the lung; worse on expiration.—Sw.

380. Chilly sensations in the shoulders and back, running downwards; worse at 9 P.M. and through the night.—Sw.

Chilliness in the back, if lying on either side, relieved by lying on the back.—Sw.

Backache; feel weak. 4th d.—Ti.

Shooting pain from lumbar region to left lung.—Sw.

Aching in the lumbar region as if lame.—Sw.

385. Aching in the small of the back at and after 9 P.M.—Sw.

Pain or great weakness in the small of the back. 6 P.M., 4th d.—Ti.

Dull aching in the region of the kidneys and small of the back. 32d d.—Ba.

Slight aching in the region of the kidneys. 30th d.—Cr.

Aching, dragging, and soreness of the sacrum and loins.—Hu.

390. Back still aches, and causes nausea and a faint feeling while standing. The pain is in the back and sacrum, mostly between the lumbar region and crista ilii, more on the right side; a pulling or dragging; feeling strained when walking. 7th d.—Ti.

Aching in the sacrum, relieved by hard pressure.—Sw.

Dull pain in the sacrum, with shooting pain beginning in the cervix and extending to the fundus uteri and thence to the right ovary, with nausea. 35th d.—K.

Dull aching pain in the lumbar region all night (after pain over the spleen). 8 P.M., 2d d.; also 3d and 4th d.—Sa.

Dull pain and tired feeling in the small of the back; on sitting down had to sit very straight. 1st d.—W.

395. Deepseated, tensive, dull pain in the right lumbar region. 2d d.—W.

Dull pain in the left lumbar region. 4th d.—W.

A number of pustules along the posterior border and inferior angle of the scapula. 60th d.—K.

Back ached almost all day; it was hard work to keep about. 8th d.—S.

Severe backache afternoon. 9th d.—S.

400. Pustules between coccyx and anus, and in the right groin. 59th d.—K.

EXTREMITIES, GENERALLY.

Hands and feet cold and clammy (never so before), with cold and pinched nose; the rest of the body warm. Very nervous feeling and violent palpitations, relieved by walking far and fast. 1st d.—K.

Alternate cold hands and feet *a number of days after last dose.*—M.

UPPER EXTREMITIES.

Hands generally cold, though moist with perspiration.—Sw.

Stitching, smarting pains along the inner sides of the arms and thighs and in the left knee. 6th d.—Ba.

405. Shooting, smarting pain along the inner side of the left arm and leg, during rest, at intervals during the day, worse from 5 P.M., to late in evening.

Severe tearing pain in the left shoulder-joint, lasting a few moments, but leaving, for a day or two, a feeling as if the shoulder were wrenched. 6th d.—B.

Sense of fulness in the left axillary gland, soon leaving the left and appearing in the right axilla. 1st d.—T.

The sense of fulness first in the right, then in the left axilla, and then in the groin returned. 1 to 2 P.M., 4th d.—T.

Axillary glands still somewhat sore. 12 and 13th d.—T.

410. A long-continued pain under the right shoulder. 5th d.—Ba.

Twitching in the left biceps. Sw.

Sore, bruised feeling in the left elbow, in the region of the ulnar nerve; and in the right side of the tip of the nose and of the chin, 6th d.—T.; worse on 7th d.; nose red but no point.—T.

Transient dull drawing pains in right forearm and dull tired pain in shoulder, 1st d.; the same, right forearm and thigh. 2d d.—W.

Weakness of the right wrist when using the hand. 4th d.—W.

415. Pain darting along the wrist and dorsum of the right hand to between first and second fingers; soon a similar pain in the palm. 32d d.—Ba.

Sensation as if a knife were plunged into the palm of the right hand, in ball at base of little finger, lasting a few minutes. 7th d.—B.

On clenching the fist, the last joints of the fingers feel sore; if pressed, they are quite painful. 32d d.—Ba.

Sharp tingling pains in the tips of the fingers. 26th d.—Ba.

LOWER EXTREMITIES.

The limbs ache badly during the afternoon. 3d.—S.

420. Aching in the muscles of the limbs on waking, 3d d., and for ten weeks.—de G.

Weakness and aching of the thighs and legs, especially when going upstairs; it seemed, before she got to the top, as if the limbs would refuse to act. Latter days of the proving.—Hu.

General weariness and prostration in the joints, especially the knees. 4th d.—Ba.

A light sensation in the left limb from the hip down, while walking. 2d d.—Ba.

Pain in the hip, worse from walking. 5th d.—F.

425. While walking, sensation of fulness in the right inguinal region, transient. 1st d.—T.

Transient dull drawing in thigh and forearm. 2d d.—W.

The hip feels well as long as I keep quiet, but, after mov-

ing, the painful pulling begins; later, it gets nearer the sacrum, a dull, heavy ache and pulling. 5th d.—Ti.

Smarting pain on the outer side of the right ham. 5th d.—Ba.

Twitching in the left patella.—Sw.

430. Considerable pain in the right knee; very feverish; palpitation. 8 P.M., 3d d.—K.

Stitching, smarting pains in the left knee and inner sides of the thighs and arms. 6th d.—Ba.

Lame feeling in the knee-joints. 7th d.—Ba.

Shooting and smarting along the inner sides of left leg and arm. 8th d.—Ba.

Aching in the lower part of both tibiæ, 12 to 1 P.M.; pain along the left sole to a point between the fourth and fifth toes. 31st d.—Ba.

435. Aching in the tibiæ; sharp stitching pain along inner side of left foot, and under the toes, after going to bed. 30th d.—Ba.

A stitching pain in the third toe of the left foot, and in the left lung at the same time, lasting a few seconds. 10th d.—Ba.

Severe pain in the right knee, passing thence to the sacrum, aggravated by crossing the limbs. (Vide pelvis.) 2d d.—K.

Aching in legs and ankles; heavy stupid feeling; sleepy. 1st d.—S.

Feet very tender all day; can hardly bear stockings to touch the feet; relieved after walking a while. 7 P.M., 31st d.—K.

440. Feet cold and damp all day; feeling as though I stood in cold water up to the ankles (feet are usually dry). 10th d.—S.

Feet (always subject to not offensive perspiration) now gave forth a most offensive odor. 2d d.—A. G. S.

Corns on toes very sore, and toes much inflamed and sensitive. 7 P.M., 32d d.—K.

Corns very painful. 47th and 48th d.—K.

GENERALITIES.

I am very feverish; eyes hot and dry; tingling sensation in left side of the nose; strong inclination to sneeze, but cannot; feel very cross, and only lack a reasonable cause to vent my ill-humor. 3d d., A.M., relieved at 10 A.M., but there is then a recurrence of the palpitation, which also recurs at 8 P.M. 3d d.—K.

445. Very feverish; palpitation; much pain in right knee. 8 P.M., 3d d.—K.

Very tired; very feverish. 7 AM., 4th d. Still very feverish. 10 A.M. and 4 P.M., 4th d.—K.

Very tired; have had some very tiresome dreams. 7 A.M., 5th d.—K.

Very feverish; no thirst. 10 P.M., 7th d.—K.

Begin to feel tired and listless (slept well last night); head feels full and hot; eyes congested and dry. 8 A.M., 12th d.—K.

450. Feel very sick; seem to have a heavy cold (never had such before); lungs very sore; cough, etc. 20th d.—K.

Chilly sensation, with nausea, followed by severe palpitation and twitching of both orbiculares palpebrarum; relieved by going out into the open air. 11 A.M., 36th d. Less severe, 37th d.—K.

Heavy stupid feeling, etc., towards P.M., 1st d.—S.; and towards P.M., 2d d.—S.

A lame, sore feeling all day, and continuation of sleepy feeling (2d day of menses). 3d d.—S.

It is a great exertion for me to work or apply myself in any way. 3d. d.—S.

455. A tired aching feeling throughout the body, after sleep, which has not refreshed. 3d to 5th d.—de G.

A peculiar wavelike sensation extending through the body; also down the arms and legs to near their extremities; then a sudden interruption of the wave and an expansion, with sharp rheumatic pain, lasting but a minute, and then subsiding. After 12 h.—F.

Pains in various parts of the body. 2d d.—F.

Inclination to sigh. 2d d.—F.

The wandering pains continue, and seem to increase, especially the drawing and expanding pain in the side of the neck; he feels dull and drowsy; a full feeling in the head. 5th d.—F.

460. Unaccountable feeling of weariness; hungry feeling in the stomach very soon after meals (two hours). 30th d.—Cr.

Feeling of prostration, *goneness*, chiefly in the stomach; craving for food; inclination to take a long breath; feeling of weight in the chest; everything seems to be an exertion. 1st d.—Ma.

A peculiar unpleasant exhalation from the body after getting warm in bed; flashes of heat over the body. 8.30 P.M., 27th d.—Ba.

The symptoms are more distinct and severe on the left side. After 5 d.—Ba.

Old symptoms reappear towards evening—Ba.

465. All the pains come suddenly, leaving more gradually, but very soon, except the pain in the face. Appetite impaired.—B.

One dose of the medicine takes away my ambition. I simply do not wish to do anything, either work or play; it is an exertion to think. 18th d.—S.

The aggravations on the 7th, 14th, 21st, and 28th days were so severe as to keep me in bed from 9 A.M. to 6 P.M.; then a total remission till 9 P.M.—Sw.

Two weeks after the symptoms had ceased, on taking a dose of Nux vomica, the Sepia symptoms reappeared the next day. The same thing happened again about two months afterwards.—Sw.

On the 108th day, having had no symptoms for thirty-four days, I took a dose of Nux vomica, after which my Sepia symptoms returned, viz., pustules on conjunctiva, throat, and tongue, and loss of memory; and lasted two days. 108th d.—K.

470. °Unusual clearness of intellect and quickness of memory, and consecutive power of thought; increase of strength

and appetite. I waken, feeling well [in a prover who always felt very languid, and waked so weak and dull that she must have some *café noir* before she could dress. Curative effect?]—Sm. and H.

TEMPERATURE.

During the Proving.	Prover's Normal.
Average, at noon, 99.5°.—Sw.	Average, at noon, 99.9°.—Sw.
3d d., A.M., 98°; P.M., 98°. 4th d., A.M., 98°; P.M., 97°. 5th d., A.M., 98°; P.M., 97°. 6th d., A.M., 97°; P.M., 97°. 7th d., 1 P.M., 98°; 6 P.M., 97°. 8th d., A.M., 97°; noon, 96°.—Ti.	Nov. 5th., A.M., 97°; P.M., 98°. Nov. 6th, A.M., 98°; P.M., 98°. Nov. 7th, A.M., 96°; P.M., 97°. Nov. 8th, A.M., 98°; P.M., 97°. Nov. 9th, A.M., 97°; P.M., 97°. Nov. 10th, A.M., 98°; P.M., 98°. Nov. 11th, A.M., 98°; P.M., 97°. Nov. 12th, A.M., 97°; P.M., 98°. Nov. 13th, A.M., 97°; P.M., 98°. Nov. 14th, A.M., 97°; P.M., 98°. Nov. 15th, A.M., 98°; P.M., 97°.—Ti.
34th d., A.M., 98.5°; P.M., 97.5°. 35th d., A.M., 98°; P.M., 97.5°. 36th d., A.M., 99°; P.M., 97.5°. 37th d., A.M., 97.5°; P.M., 97.5°. 38th d., 99°; P.M., 99°. 39th d., A.M., 97.5°; P.M., 97.5°—Sh.	
4th d., A.M., 97.5°; P.M., 96°. 5th d., A.M., 98°; P.M., 96°. 6th d., A.M., 97°; P.M., 96°. 7th d., A.M., 97.5°; P.M., 96°. 8th d., A.M., 98°; P.M., 97°. 9th d., A.M., 98°; P.M., 97°. 10th d., A.M., 98°; P.M., 96.5°.—Ba.	Nov. 7th, A.M., 97°; P.M., 96°. Nov. 8th, A.M., 97°; P.M., 96°. Nov. 9th, A.M., 97°; P.M., 96.5°. Nov. 10th, A.M., 97.5°; P.M., 96 5°. Nov. 11th, A.M., 97°; P.M., 96°. Nov. 12th, A.M., 96°; P.M., 96.5°. Nov. 13th, A.M., 97.5°; P.M., 96.5°. Nov. 14th, P.M., 96°. Nov. 15th, A.M., 97°; P.M., 96.5°. Nov. 16th, A.M., 97.5°. Nov. 19th, P.M., 96°. Nov. 20th, A.M., 97.5°; P.M., 96°. Nov. 21st, A.M., 97.5°; P.M., 96°. Nov. 22d, A.M., 97.5°; P.M., 96°. Nov. 23d, A.M., 97.5°; P.M., 96°. Nov. 24th, A.M., 97°; P.M., 97°. Nov. 25th, A.M., 97.5°; P.M., 96°. Nov. 26th, A.M., 97°. Nov. 27th, P.M., 96.5°. Nov. 28th, A.M., 98°; P.M., 96°. Dec. 10th, A.M., 97°; P.M., 96°. Dec. 11th, A.M., 97.5°; P.M., 95.5°. Dec. 12th, A.M., 97°. Dec. 13th, A.M., 97°; P.M., 96°. Dec. 14th, A.M., 98°.—Ba.

SKIN.

475. I perspire very easily while walking, even against cold winds.—Sw.

Perspiration at the bends of the elbows and knee-joints, running off in drops.—Sw.

Perspiration generally on the right side only, and especially marked on the inside of the elbow and knee-joints.—Sw.

Very sensitive to currents of air, especially about the head and neck.—Sw.

Perspired very freely, wetting my clothes about the waist. (I naturally perspire easily.) 9th d.—S.

480. The skin is tender; the least scratch or bruise heals very slowly.—Sw.

Since taking Sepia, any abrasion of the skin or a burn makes a sore which lasts a long time (not usual with me). 11th d.—S.

Itching in various parts of the body, relieved by scratching, after which there is a pinkish color. 2d. d.—F.

Peculiar, quite unpleasant exhalation from the body after getting warm in bed. 27th d.—Ba.

Severe itching on the right side of the pubes; worse at night on going to bed, becoming moist from scratching and forming a thin scab, easily pulled off. 7th to 18th d.—Sh. Disappeared 31st d.

485. Since the 32d day, a vesicular eruption on the scalp, chest, back of shoulders, and on calves of legs and knee-joints. A few of the vesicles become pustules, and when squeezed discharge a tough, sticky matter; pressure was painful, and made them look angry. Those on the scalp itched; brushing the hair was pleasant, but combing and scratching painful; more scales than common on brushing the hair. 44th d.—Ba.

Eruption on the head, neck, and shoulders, itching badly during the evening and all night. 4th and 5th d.—S.

A fine rash over the body, especially about the bends of the elbows and knees, with prickling, tingling and itching; while in a warm room it continued, and she felt well; in a cold room the rash disappeared, and she had very severe rheumatic pains in and about these joints. 19th d. (9th day after third dose of Sepia).—A. G. S.

By the 23d day of the proving the rash had extended over

the arms to the axillæ, and over the lower extremities to the groins. When warmly dressed and in a warm room, she felt well; when exposed to cold, the rash disappeared and pains returned. 23d d.—A. G. S.

When the eruption appears, it is attended by a profuse sweat, lasting two or three days.—A. G. S.

490. Several pimples on cheeks and wrists, which are very sore, of a pustular character first, and then resemble chicken-pox. Constipation. Constant hunger, mostly for sweet things and meat, 3d d. The pimples on cheeks and the hunger for sweets continue ten weeks, during which the prover feels more cheerful than usual, and much inclined to sing. Has disturbed sleep, and aching in the muscles of the abdomen and limbs on waking.—de G.

Pimples on the cheek appear just before menses.—de G.

Prickling at the point of eruption just before the pimples appear; they burn and are sore, discharge pus and blood when opened, and leave a small pit.—de G.

Pustules in the right groin and between the coccyx and anus; they feel hard like shot, 59th d., K.; very painful; also along posterior and inferior border of scapula. 60th d.

Pustules forming on crista ilii from spine to middle of bone, 61st d., K.; *very painful.*

495. Pustules indistinct on body; throat and eyes affected, 63d d.; better 64th d.—K.

CHILL, FEVER, ETC.

A distinct chill at 9 A.M., followed by fever, with chilliness across the stomach and bowels and between the shoulders, and this followed by offensive and pungent sweat of the body and feet. 2d d.—A. G. S.

One hour after the third dose (10th d. of proving) she felt a coldness between the shoulders, and then a general chilliness over the body, followed by a sudden loss of strength, and weakness about the chest, and she broke out into a profuse perspiration over the chest and neck;

the hands and feet became cold as ice; she thought she should vomit; relieved on rising and moving about. Pain and soreness through the bowels all the evening. 3 P.M., 10th d.—A. G. S.

A slight chill at 5 P.M.; flashes of heat at 6 P.M., the skin getting slightly moist. 4th d.—Ba.

Chilliness in the back, if lying on either side, relieved by lying on the back.—Sw.

500. Chilly sensation in the shoulders and back; worse at 9 P.M. and through the night.—Sw.

SLEEP.

Slept well during the proving, except a few nights of distress in the pelvis with frequent wakings.—Sw.

During thirty days of proving, waked only three times at 3 A.M., and twice at 4.30 A.M., other mornings at 5 or 6 A.M.—Sn.

Waked 4.30 A.M.; no apparent cause; remained awake. 1st d.—K.

Restless nights; very tired morning; laborious dreams. 2d, 3d, and 4th d.—K.

505. Restless night, full of dreams; waking often in fright. 6th d.—K.

Having been up all night, slept from 7.30 A.M. to 10.30 A.M.; then waked very hungry, and could not sleep because of gnawing hunger (though had eaten at 7 A.M.); eyes hot and dry; feel sick all over. 11th d.—K.

Sleep does not refresh; leaves a tired ache all through body. 3d to 5th d.—A. G. S.

Disturbed sleep and aching in muscles of abdomen and limbs on waking.—de G.

Sleep pretty good, but not refreshing.—Sa.

510. Dreamy and restless. 7th d.—Fr., and 9th d.—Fr.

Restless sleep. 1st d.—W.

Disturbed sleep all night from unpleasant dreams. 1st d.—Ma.

During first part of the proving I slept soundly, but after-

ward my sleep was restless, with dreams, of which I remember only one, a foolish one.—Ba.

DREAMS.

Generally I have pleasant dreams. While proving Sepia they were numerous, vivid and frightful, of murder and scalping Indians.—Sw.

515. Laborious dreams; dreams often waking her in fright.—K.

Lewd dreams, with seminal emission. 3d d.—B.

Distressing dreams; could see mice, rats and snakes; no pain, but very dreamy and restless; heard noises in street, and people talking, etc. 7th d.—Fr.

AGGRAVATIONS.

Most marked at 9 P.M.; if in the forenoon, 9 A.M.—Sw.

While lying. After a nap, especially afternoon.—Sw.

520. While remaining long in one position.—Sw.

Marked aggravations on the 7th, 14th, 21st, and 28th d.—Sw.

From taking Nux vomica two weeks after, and two months after cessation of symptoms.—Sw.

From taking Nux vomica thirty-four days after cessation of symptoms.—K.

Pains in head and face are worse when thinking about them.—Hu.

AMELIORATIONS.

525. From eating, *several provers;* supper.—Sw.

From hard pressure on the seat of the pain.—Sw.

From moving about slowly.—Sw. In the open air.—Sw.

By being warmly covered.—Sn.

From repose—*many provers.*

530. While perspiring.—Sw.

When out of doors. 3d d.—Ti.

Total remission of symptoms from 6 P.M. to 9 P.M.—Sw.

III.

OBSERVATIONS ON SEPIA.

By Mercy B. Jackson, M.D., Boston, Mass.

For more than twenty years I have found Sepia indispensable in the treatment of uterine diseases. There has been no other medicine used by me, that has been beneficial in so many cases.

The symptoms and conditions which most surely call for Sepia, in my opinion, are 1st, *misplacements*, whether by prolapse, or flexion to one side, or retroversion, or anteversion, or flexion on itself forward or backward; Sepia will in most cases restore the uterus to its normal position, if given in the 30th or higher potencies, daily or every second day and persisted in for sufficient time, without manual interposition, and the cure is generally permanent.

But in order for it to be useful in any case the subjective symptoms must correspond to its pathogenetic symptoms.

Those most characteristic are turns of prostration and sinking weakness running suddenly over the patient, resembling fainting, but not going so far as to destroy consciousness. I have rarely if ever found a case of uterine disease in which these turns were frequent, in which the other symptoms of Sepia were not found, and when it did not do a great deal for the sufferer.

Another characteristic symptom is a burning pain, in the small of the back, accompanied by a dragging sensation there, continuous, or often recurring.

Bearing down in the pelvis is another symptom that calls for

Sepia, and when this and the first-mentioned symptom are wanting, it will rarely or never be useful.

Yellowness of the skin and brown spots on it corroborate the other symptoms and make the choice more easy.

Profuse leucorrhœa, rather watery and offensive, is almost always improved by Sepia, and if to these indications are added a brownish color and acrid character of the discharge, it is still more sure to be successful.

I have felt it in procidentia restore the uterus so rapidly that its movement was plainly felt returning to its place, as if raised by a power within the pelvis, and have often seen cases restored by it in a few minutes, in my practice, and so great is my confidence in its power to do this, that in recent cases of prolapsus I never resort to manipulation, but prepare some in water and give one teaspoonful, every few minutes till the sufferer is relieved, and then continue it at longer intervals, until it is given only once a day to complete the cure.

Of course the patient is placed in a favorable position, on the back with the knees elevated and the feet resting on the soles. In many cases of recent origin, Sepia will entirely cure, but in cases brought on by lifting, Cal. carb. is often needed to aid the Sepia.

I have found in many cases of chronic disease in women, where the symptom first mentioned of sudden prostration, with sinking faintness, was often experienced, that Sepia was a very important remedy, and I think that symptom is the most characteristic of any one in its pathogenesis.

SECTION III.

REPORT

OF THE

BUREAU OF CLINICAL MEDICINE,

H. NOAH MARTIN, M.D., ... Philadelphia.
S. LILIENTHAL, M.D., ... New York.
L. E. OBER, M D., ... La Crosse, Wis.
WILLIAM H. HOLCOMBE, M.D., ... New Orleans, La.
E. C. BECKWITH, M.D., ... Columbus, O.
W. H. WATSON, M.D., ... Utica, N. Y.
WILLIAM EGGERT, M.D., ... Indianapolis, Ind.
J. F. COOPER, M.D., ... Alleghany, Pa.
JONATHAN PETTET, M.D., ... Cleveland, O.

TO THE

TWENTY-EIGHTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME I. NUMBER 9.

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LX. The Treatment of Bright's Disease, ... WILLIAM H. HOLCOMBE, M.D.

LVII.

PATHOLOGY AND DIAGNOSIS OF DIABETES.

By Jonathan Pettet, M.D., Cleveland, O.

The subject of saccharine urine has of late years occupied much attention, and yet the literature thereon gives a scientific student but little satisfaction. Each one is wedded to his theory, and every fact not of use in establishing it is lost sight of and much confusion caused. The researches upon this subject may perhaps be scanned a little, and a partial abstract be given, in order that we may know where we stand at the present time, and have some data upon which to found a hypothesis.

Inordinate thirst and voracious appetite, with great emaciation, for years attracted some attention, and the excessive excretion of urine in these cases caused the ancient physicians to name it *diabetes* (*δια*, through, and *βαινω*, I go), and thus it stood until Thomas Willis ascertained its sweet taste in some cases, when it came to be divided into classes, *insipidus* (tasteless) and *mellitus* (honeyed).

This was about 1674, and in 1774 an addition was made to this by Dobson (Matthew), of Liverpool, England, who found that in cases of mellitic urine the blood also contained sugar, and four years later Carley succeeded in separating the sugar from the urine.

Chevreul (1815) found the resemblance between diabetic and grape sugar, and in 1837 another point allied to the above was discovered by McGregor, who found sugar resembling diabetic sugar in the vomited matter of diabetic patients. This strength-

ened the discovery of Tiedeman (1825) that starch is changed to sugar during the progress of digestion, although it rather confused the existing opinions in relation to diabetes.

Bernard (1848) showed conclusively that in health animals formed sugar constantly, beginning in the earlier stages of digestion, in the mouth and stomach, and being completed in the liver.

About the same time he also discovered that pricking the floor of the fourth cerebral ventricle produces artificial diabetes in animals; and here many thought the final discovery was made, and that all cases of diabetes must be due to diseased states of this part.

Harley, in 1853, produced temporary diabetes also, but in a different way, by introducing stimulants into the portal circulation. This did not at all assist the believers of the other theory.

Returning to Bernard we find that in 1855 he discovered that sugar is formed in the liver after death, and after its removal from the body, and moreover that albuminous material becomes *glucogene* before being changed into sugar. Harley and Chauveau the next year found that this sugar after entering the circulation was not burned off in the lungs, as generally supposed, but disappeared in its transit through the capillary circulation.

But of permanent importance was the discovery (1860) of Bruecke and Jones that *traces of sugar can be detected in normal urine.*

It will be seen from the above that the pathology of diabetes is somewhat obscure, and differs in almost every case, and has been found to follow lesions very different in character. It has been known to follow where there was

1. Clot in the pons varolii.
2. Injury to the head, with fracture of the skull.
3. Injury to the head, without fracture of the skull.
4. Softening of the base of the brain.
5. Abscess of the cerebellum, extending to the fourth ventricle.
6. Tumor in the left lobe of the cerebellum.
7. Diseases of the respiratory organs—phthisis, bronchitis, pneumonia.
8. General diseases, as small-pox, etc.

9. Exposure to cold.
10. Intense grief.
11. Sudden mental shock.
12. Excessive mental labor.
13. Tumor of pneumogastric nerve.
14. Diseases of sympathetic nerve.
15. Bony spiculæ in the falx.
16. A blow on the epigastrium.
17. Pregnancy.
18. Uterine disease.
19. Disordered digestion.
20. Hereditary constitutional peculiarities, etc.

The pathology being so varied, then, I do not propose to espouse any particular theory in the present paper, nor dwell more extensively upon it. Each case must be individualized in a way familiar to every homœopath when in other diseases he individualizes his cases before prescribing.

DIAGNOSIS OF DIABETES.

Diabetes may be suspected in patients presenting an array of the following

SYMPTOMS: Dry skin, with excessive thirst, especially at night, and great hunger; hard fæces, small in quantity; want of natural warmth; wasting away of flesh constantly; loss of sexual desire and power; depression of spirits and peevishness; mouth feverish and tender; phthisical diathesis. If added to these symptoms there be an excessive flow of urine, we may be justified in at once testing the urine for the most important proof of all, sugar. This last, however, must be repeated at various times, inasmuch as the sugar may be present at one time and not at another, showing only a temporary diabetes.

GENERAL CHARACTER OF DIABETIC URINE.

Color.—The color is generally pale, and sometimes after two or three days the surface becomes covered with a whitish film, owing to the development of the *sugar fungus* and *penicillium glaucum.*

Taste.—The taste is of a sweetish character, and often when allowed to stand swarms of flies are attracted to it, which fact

alone has in some instances called the patient's attention to its abnormal character.

The smell is very peculiar, and needs to be experienced to be understood. It has been compared to that of violets, apples, new-mown hay, whey, horses' urine, musk, sour milk, etc., but these are only approximate descriptions.

The specific gravity is usually as high as 1030, and in some severe cases 1050; exceptional cases, however, occur as low as 1005.

The reaction is generally acid.

Deposits of phosphates, uric acid, and other substances may occur, but as a rule the extractive matters are much diminished.

The quantity of urine passed is enormous, and P. Frank mentions a case where fifty-two pounds were discharged in twenty-four hours. Twenty pints per day is not uncommon.

The solid matter, composed mostly of sugar, varies much, sometimes reaching as high as two pounds.

The urea as mentioned is generally diminished, but in many cases a considerable excess is excreted.

Albumen is sometimes present.

Diabetic sugar differs from the sugar of fruits, and in some respects from that obtained from the liver. It appears as a pale-brown, uncrystallized, treacle-like mass. Crystals have been obtained by allowing a few drops of diabetic urine to evaporate spontaneously on glass.

THE TESTS for sugar are numerous, and by means of the finer ones its presence can be shown in normal urine. The ordinary tests, however, do not show this small quantity, unless some of the other urinary constituents are first separated. Dr. Beale suggests that these traces may be from the decomposition of the coloring matters.

Torulæ.—The development of the yeast fungus is a valuable test in diabetes, and should by no means be overlooked. For this the urine must be set aside for a few days before the fungus will form sufficiently to distinguish it from the *penicillium glaucum*. The earlier growth of the two may be confounded on account of their close resemblance, but their later growth will easily remove doubt, for their aerial fructification is different.

The yeast test is the most satisfactory one that can be made, and if used with care cannot fail to show the presence of sugar. The easiest, most convenient, and simplest way to make this test is, to take two test-tubes, half fill one of them with the suspected urine, and the other with water, and then adding as much fresh yeast. These are then to be inverted in vessels containing the suspected urine and water respectively. The inverting of these tubes and their submersion is easily enough accomplished by placing the thumb or finger over the open end of one tube, and submersing it in this condition, and withdrawing the finger, when the open end is completely covered with the urine in the vessel. The pressure of the air will keep the tube filled if it be supported in position by any suitable apparatus. When the tubes are placed in position, they must be kept at an even temperature of from 80° to 90° for a few hours, and the comparative size of the gas-bubbles noticed. If any appreciable quantity of sugar be present, the amount of gas developed in the tube containing the yeast and urine will be quite large, while that in the remaining tube will be very small, inasmuch as it consists simply of the yeast-bubbles, which may have been pressed in the tube when inverted. In the tube which contained the urine and yeast, the gas is carbonic acid. This is readily absorbed by potash, and can easily be shown not to be like the gas in the other tube by placing a piece of the solid potash on the end of the finger and inserting it into the submersed end of the test-tube, and in this position closing the tube, removing it, shaking it a little, and reinserting it in position, when the tube will be observed to be filled with the liquid urine again by the air-pressure. The alcohol can be detected by the bichromate of copper and dilute sulphuric acid test.

Many of the other tests will be mentioned simply by name: Chromate of potash test; the bismuth test; Horsley's test; Maumené's test; Garrod's test; Roberts's (fermentation) test; Moore's test; the polarizing saccharimeter; the bismuth test (Boetger's); Leconte's test; Trommer's test; Fehling's test; Barreswil's test; the copper test; Pavy's test; Gmelin's test; Heller's test.

LVIII.

THE THERAPEUTICS OF DIABETES.

By S. Lilienthal, M.D., of New York.

Raue (*Pathology*, p. 356) gives the following symptoms of diabetes: "Excessive quantity of urine, containing sugar; excessive thirst, especially at night, and great hunger; dry skin; fæces small in quantity and hard; want of natural warmth; constant wasting away of flesh; sexual desire and power entirely gone; mind depressed and peevish; at its height the mouth becomes hot and sore, and superadded phthisis puts an end to the scene."

The question is not yet decided, whether (Claude Bernard) the liver *physiologically* secretes sugar in the yellow cells of the hepatic organ, or whether (Tscherinoff), glycogen is formed from the sugar carried to the liver, and when this organ loses the faculty to work off the sugar and to change it into glycophthinium (sugar-destroyer), then the sugar remains in the blood and diabetes arises. At any rate we may consider *diabetes as a diseased state from increase of the normal hepatic sugar.*

Murchison (*Functional Derangements of the Liver*, p. 50) considers diabetes in most cases a functional derangement of the liver, and puts the various causes of it under three heads.

1. *Imperfect Glycogenesis of the Liver.*—One function of a healthy liver is to prevent the immediate passage into the blood of the glucose derived from the food, by converting it into glycogen, but the capability of the liver to convert sugar into glycogen is not unlimited. According to Bence Jones, in half

of the cases of diabetes the disease consists in an arrest of change in the food-sugar.

2. *An Increased Conversion of Glycogen into Sugar, the destruction of the Sugar remaining unaltered.*—In considering the functions of the liver, we find that the glycogen formed in it is partly converted into sugar, which disappears in the lungs and muscles, but is probably mainly destined to support the nutrition of the blood and tissues throughout the body. Whatever, then, favors the reconversion of glycogen into sugar to an extent greater than can be consumed in the lungs and muscles, will lead to an excess of sugar in the blood and its appearance in the urine, and will to a corresponding extent interfere with the nutrition of the body. Now, whatever quickens the circulation of blood through the liver, particularly in the hepatic arteries, favors the conversion of glycogen into sugar, possibly by increasing the amount of albuminoid ferment already referred to; and accordingly whatever paralyzes the vasomotor nerves of the hepatic vessels, either directly or indirectly, dilates these vessels, produces an increased flow of blood through them, and so leads to diabetes. Thus it is that diabetes is produced by irritation of the roots of the pneumogastric nerve in Bernard's "diabetic puncture," by certain injuries and diseases of the brain and spinal cord in man, by distress and anxiety of mind, by poisoning with woorari, and by injuries and lesions of the peripheral extremities of the pneumogastric nerve in the lungs, liver, stomach, and intestines.

3. *Diminished Destruction of Sugar.*—The pathological presence of sugar in the urine may depend in some cases upon a failure of the conditions under which the normal transformation of the sugar takes place. Experiments make it probable that the sugar in the blood, under the influence of a ferment, is converted into lactic acid and glycerin, which undergo combustion, and so maintain the animal heat; and it is believed that, when this ferment is absent, the sugar is not decomposed, but is excreted in the urine. Many facts seem to show that diabetes may result from a morbid state of the blood. Thus the introduction into the blood of ammonia, ether, chloroform, or phosphoric acid is followed by glycosuria, while the introduction of carbonate

of soda will prevent it. Prout long ago observed a saccharine condition of urine as a not uncommon result of gout, and glycosuria has been repeatedly observed in cases of pneumonia, hooping-cough, and phthisis, which lead to deficient oxygenation of the blood.

In another place (*l. c.*, p. 78) Murchison says it is clear that the kidneys and the liver are intimately connected in their functions, the main object of the kidneys being to eliminate certain products which are in great part secreted in the liver. Derangements of one organ are, therefore, very likely to lead to disorder of the other. Chronic degeneration of the kidneys with albuminuria is sometimes also a sequel of diabetes, the kidneys becoming diseased from the constant irritation of the saccharine urine.

Dr. Jaccoud divides diabetes into three stages or periods, the first comprising the time when the error in diet affects only amylaceous substances (amylaceous diabetes); the second, when it affects equally the evolution of azotized albuminous substances (nitrogenous diabetes); the third, when, in addition to the food, the tissues of the patient himself are made use of to form sugar.

Diabetes must, therefore, be considered a *cachexia, a retrograde evolution of the organism*, and Ozanam (*N. A. J. of H.*, xxii, 398), after showing the coaffection of the sympatheticus, concludes that this evolution would act to cause the organisms to retrograde to the fœtal state, for during the first five months, the liver not yet existing, the fœtus receives the sugar which enters the most of the tissues and organs from the placenta, which performs thus the functions of the lungs by its capillary vessels, and of the liver by the glycogenic cells which it contains, and which atrophy alone after the formation of the liver.

Hughes (*Brit. J. of H.*, xxiv, 3) cites Bruecke and Jones to prove that traces of sugar are even to be detected in normal urine; an observation which has an important bearing on the pathology of diabetes, for it may be regarded as a fundamental law that in disease neither new substances nor new functions are created. Morbid phenomena are merely the results of a change in the quantity and quality of normally existing agents and agencies.

Before attending to the subject delegated to me by the chair-

man of this bureau, allow me to glance over the phenomena found in persons succumbing to diabetes. Niemeyer (*Pathology*, Vol. II, p. 870, *e. g.*) gives us the following summary: The body extremely emaciated; on the external skin many residua of decubitus, furuncles and carbuncles, of gangrenous destruction; in the brain no conspicuous changes; in the lungs in nearly all cases tuberculous or cheesy degenerations, recent and old ones, sometimes also pneumonic or gangrenous destructions; the heart withered and atrophic; the liver usually normal, sometimes hyperæmic; the pancreas, where pathological changes are so rarely observed, frequently atrophic; the walls of the stomach moderately thickened by hypertrophy of the muscularis (probably in consequence of the hearty meals); the kidneys enlarged by hyperæmia, and in solitary cases in a state of chronic parenchymatous inflammation (morbus Brightii).

Now to our subject, *the therapeutics of diabetes*, which must be considered in a twofold aspect, the dietetic treatment as well as the medicinal.

Authorities disagree about the value of the dietetic treatment, and whereas it is to some the *sine qua non* of their treatment, others of equal celebrity consider it secondary or a mere habit of following in the traditional wake of prescribing, and they rely entirely upon medicinal treatment, in which every writer of the old school rides his favorite hobby. Our own Hughes, with his wonted acumen, cuts the Gordian knot, by showing that the dietetic treatment must differ according as the disease is one of increased formation of sugar or of diminished assimilation thereof, and whereas he favors strict diabetic regimen in the former state, he allows in the latter a varied and generous diet.

The first indication in any treatment is certainly *tolle causam*, although we cannot subscribe to the other proverb that *sublata causa tollitur effectus*, for diabetes proves the falsity of this doctrine. In relation to the removal of a cause for diabetes, Murchison (*l. c.*, p. 148) teaches us that the present system of living, and especially the consumption of even what are regarded as average quantities of rich food and stimulating drinks, contribute largely to derange the liver. With regard to individual elements of food, speaking generally it may be said that the

liver is most apt to be deranged by saccharine and fatty substances, but of all ingesta the various alcoholic drinks are most apt to derange the liver by causing persistent congestion of the organ; and this injurious effect of alcoholic beverages upon the liver increases in a direct ratio with the amount of sugar plus alcohol which they contain; these are the malt liquors of all sorts, port wine, madeira, tokay, malaga, sweet champagne, dark sherries, liqueurs, and brandy. Sedentary habits and confinement in badly ventilated rooms, lend their aid in deranging the liver. Regular exercise in the open air is necessary for a sufficient supply of oxygen to the system and thus promoting the circulation of blood through the liver.

Appropriate diet is at any rate to be recommended in diabetes from excessive formation of sugar, and the patient ought to avoid not only all sugars and substances containing saccharine matter, but also all kinds of food convertible during the process of digestion into sugar. English practitioners are far more strict in their dietary prescriptions than their German colleagues, as the latter consider it improbable that any patient for a length of time—and diabetes being a very chronic disease—will strictly abstain from all starchy food; and it has been often demonstrated that even the most strict regimen never cures diabetes, while an increase of sugar follows every indulgence, whereas medicinal treatment without such excessive strictness has been followed by enduring amelioration and even by some cures. Kafka, Jr. (*A. H. Z.*, No. 9, 10, 1875) shows that Carlsbad keeps up its reputation in the treatment of diabetes, although small quantities of bread were allowed daily to each patient, that it is necessary to provide easily digestible animal food, even with some bread, and that the stomach should never be overloaded (small but frequent meals), rather than remain obstinately wedded to the strict prohibitionary diet.

Donkin's *skim-milk* treatment (with exclusion of all medicinal matter) deserves our consideration, being nearly allied to hygienic treatment, and being also in its relations to our own lactic acid and lac defloratum perfectly homœopathic to the disease. Donkin administers the skim-milk, properly prepared, in quantities measured and limited to the requirements of individual cases, given at

regular intervals, in definite doses, and *to the exclusion of all other food*, for a longer or shorter period. In several cases the daily allowance of skim-milk, having a specific gravity of 1038, was from seven to eight pints, divided into meals taken at regular intervals, and the treatment carefully continued for nearly two months. Although the quantity of urine passed during twenty-four hours may not greatly vary, we witness necessarily a steady decline of the specific gravity of the urine with the simultaneous diminution of sugar in the urine. Even where the disease is too far advanced to admit of cure, and the consequent removal of the sugar completely from the urine, the skim-milk treatment will reduce the quantity of sugar in a very much greater degree and hold the disease in check far more powerfully than any other remedy yet discovered, to say nothing of the subjugation of the more distressing symptoms. For particulars we must refer the members of the Institute to the work of Donkin.

Balfour (*Edinburgh Medical Journal*, Dec. 1871) prefers Contani's method of treating diabetes by *Lactic acid*. The Italian professor believes that in diabetes the question is not so much one of increased production of sugar as of defective combustion; this he conceives to be proved by the small number of respirations made by diabetic patients and by their average low temperature. This defective combustion, he believes, depends upon the production of a morbid form of glucose, which he has termed ferroglucose; this is incapable of being transformed into lactic acid, and therefore cannot be burned; it is consequently passed unchanged into the urine. He also, like Ozanam, adopts three stages of this disease, first, that in which the sugar oscillates with the quantity of amylaceous food supplied; second, that in which the inosite and gelatinous matter of the animal food are transformed into diabetic sugar; third, when not only these but also the inosite and gelatinous matter of the body of the patient himself are so transformed,—a most severe and hopeless form of autophagia. Contani proposes to prevent this waste of the body by supplying a combustible agent in a quantity sufficient for the wants of the body, so that the fats and albuminates may continue to be stored and the body be thus gradually restored to its normal standard. As lactic acid represents

the intermediate stage between glucose and carbonic acid, and is in all probability employed in the normal condition of nutrition, he selected this agent for the relief of diabetic patients, administering from 77 to 154 grains daily, diluted in from 8 to 10 fluid ounces of water, and taken during the day with exclusive meat diet; for drink he only allows water, either plain or with a little of the purest alcohol. When amelioration has fully taken place, he relaxes his strictness somewhat by allowing the ordinary bran biscuits of the shops, and advises his patients to drink koumiss (milk fermented in a warm place by the addition of a small quantity of very sour milk; it is apparently composed of the caseous matter in a state of extremely fine division, lactic acid, and a certain amount of alcohol, besides the fatty matter and salts ordinarily present in milk).

The *alkaline* treatment, ushered in with so much flourish, is nearly exploded. A chemical transformation of the glucose, and thus a diminution of the sugar in the urine, cannot be denied; it never cured a case, but many a time interfered with the digestive functions. The French prefer the Citrate of soda in doses of from four to five grammes daily, mixed with the food like common salt.

Demarquay, Bouchardet, and Limousin have seen marked diminution in the amount of sugar excreted by the use of *oxygen inhalations*. They used the apparatus of Limousin, an iron flask, or retort, connected with a Wolffe's bottle which contains a solution of caustic potash. The oxygen gas passes through the washing-bottle into a caoutchouc balloon. The material out of which the gas is made is the ordinary mixture of the black oxide of manganese and the chlorate of potash. Decarbonization of the blood is thus aided, and the sugar which otherwise would have to be eliminated by the kidneys is consumed in a more natural manner. (*Bulletin Générale de Thérapeutique*, 675, p. 97.) Wilmot (*Med. Times and Gaz.*, Dec. 1868) recommends ozonic ether, a solution of peroxide of hydrogen in ether, for the same purpose, as it has a most powerful influence upon the cutaneous, nervous, and vascular systems, imparting a glow of warmth to the surface of the body and stimulating the glandular element of the skin. It also assuages the painful feeling of con-

stant thirst, it allays restlessness by its anæsthetic qualities, and diminishes considerably the quantity of urine voided. The ozonic ether controls the excessive elaboration of sugar in the liver by influencing the hepatic portion of the organic system of nerves and enabling it to resume its normal function of determining the formation of glycogen by the hepatic cells, thereby converting saccharine elements into an oxidizable substance, which becomes resolved into carbonic acid and water, and in that condition is cast off by the depurating organs of the body.

Austin Flint (*Am. Practitioner*, Jan. 1870) speaks a good word for *Bromide of potash*. Patients find it soothing to the nervous system, and it gradually diminishes all the symptoms of diabetes. This fact is denied by other physicians, and as *Carbolic acid* is just now in fashion, Dr. Millard (*Mich. Med. Journ.*, Jan. 1872) uses it in minimal doses in combination with iron and cod-liver oil, and reports success. Prout has already recommended *Phosphoric acid* as a lemonade as the only agent by which the thirst of diabetes can be materially lessened.

German physicians, with Binz as their leader, recommend the steady use of Quinine in moderate doses for the elimination of the sugar. It cannot be gainsaid that patients improve under this treatment even when mixed diet is allowed, but so far no perfect cure is yet recorded in the German literature.

Narcotics, fare ye well! They are, at least as far as diabetes is concerned, discarded by their friends.

From such guesswork treatment we turn with pleasure to a treatise by Sir Henry Marsh (*Med. Press and Circular*, Jan. 1867), where that celebrated physician makes the following important remarks: 1st. In many of the cases whose histories are recorded, *the earliest disturbance in the general health could distinctly be traced to some cause acting upon the skin and producing derangement of its functions*. 2d. *Every* case of diabetes mellitus is accompanied with a peculiar morbid condition of the skin. 3d. None of the remedies employed produced the slightest beneficial effect, until the skin began to relax and a sweat to appear on the surface. This suggested the probability of advantage arising from the application of *vapor* to the whole surface of the body, and the impression made upon that disease by the frequent

use of vapor baths surpassed his expectations. The perspiration must be afterwards maintained by warm clothing, and *suitable exercise and bodily labor.* COPIOUS PERSPIRATION PRODUCED BY THE VAPOR BATH AND MUSCULAR EXERTIONS ARE OUR STAND-BY IN CONTROLLING AND RESTRAINING THE SYMPTOMS OF DIABETES. The daily employment of hot or vapor baths may be necessary for weeks, nay months, to bring about that relaxed and freely perspiring state of the skin without which whatever temporary abatement in the symptoms or diminution in the flow of urine may have taken place, not one step has in reality been made towards the accomplishment of a cure.

Richardson (*Remarks on Diabetes and its Treatment*) confirms this statement, and as the doctor was himself a sufferer, we might as well allow him to state his case. At first he strictly limited his diet till he came to loathe his food; then he gradually relaxed his system of dieting with benefit. No sugar accumulated in his system. The tests he employed for anything like error committed in his diet were these: 1, dryness of the mouth, especially at night; 2, increased quantity of urine; 3, weight of body. Gradually, emboldened by this, he relaxed his diet, and *at the same time increased his walking exercise.* His diet was as follows: Breakfast, cocoa well done, fish or eggs, brown bread or cakes eaten with plenty of good fresh butter, at times ordinary bread well toasted; Luncheon, eggs or soup, with maccaroni or rice, cold meat, with a tablespoonful of brandy, or two glasses of claret in a tumbler of water; Dinner, soup or fish, meat, green vegetables, potatoes (sparingly), cheese, at times pale ale, and a little dry fruit.

Such a liberal diet could not be persevered in were it not for *abundant exercise* and other precautionary measures. In ordinary cases the author recommends the diet to be gradually reduced to its simplest elements, dropping first one thing, then another, but no sudden change. As soon as anything like loathing occurs, he relaxes. Of all things he lays the greatest stress on walking exercise, which should be persevered in, notwithstanding weakness and total disinclination for exercise or exertion. Walks, however, should never be so long that they over-

fatigue the patient, which is a great mistake, and even too long journeys in railways are to be avoided.

The third thing in treatment Dr. Richardson insists on is the value of the warm bath. The vapor bath might be preferred. The great object is to promote perspiration, and warm clothing is therefore strongly recommended. Winter and summer the patient should be enveloped in flannel.

As to medicines, Iron, Nux vomica, Chlorate of potass., and small quantities of a chalybeate water may be recommended. If the patient complains of acidity, Potass. may be given. Cod-liver oil or some other form of fat or oil should be prescribed. Opium does harm. Vichy water must be taken with care; not too much, except there is acidity. Carlsbad resembles Vichy, except that it is slightly purgative.

Niemeyer and Griesinger deny the power of any of the many remedies so highly extolled by different physicians to be of any influence in removing that morbid diathesis which goes by the name of diabetes. We follow such guides, and therefore will not incumber our pages with remedies praised one year and forgotten the next.

To us remain interesting only Ammonia, Ether, Chloroform, and Phosphoric acid, as remedies which, introduced into the blood, produce glycosuria, and Lactic acid, Carbolic acid and Kreasote. Nitrate of uranium has also been used by our school with beneficial results.

Passing in review the ground gone over, we come to this résumé.

Diabetes is a retrograde evolution, as the same process which during fœtal life is normal and physiological becomes in later periods pathological, a diseased state.

The cause of diabetes is most frequently catching cold, getting a thorough wetting, or anything which depresses the nervous system. Its first effects are seen on the skin and glandular system, even before sugar can be detected in the urine.

The sugar in the urine arises either from imperfect glycogenesis in the liver, or from increased conversion of glycogen into sugar, or from diminished destruction of sugar.

The best treatment is hygienic; perspiration must be forced, in

order to relieve the overtasked kidneys, and exercise is necessary to increase respiration and muscular activity.

Remedies given allopathically, except some light alkaline treatment (Carlsbad, Vichy), have no influence whatever on the disease.

Are we better off with homœopathic treatment? Apparently it seems so, but let us critically examine these vaunted remedies, and see whether they will stand a close examination.

Raue (*Record*, 1873) mentions the following remedies as having been used for diabetes: Arg. fol., Arsen., Ascl. vinc., Canth., Carbol. ac., China and Chin. sulph., Coloc., Cupr., Digit., Helon. dioica, Hydr. Hyper., Kali hydroj., Kreasot, Lach., Lycop., Magn. usta, Magn. sulph., Mineral waters, Moschus, Nux v., Phosph. acid, Plumb., Ratan., Sulph., Sulph. ac., Tereb. ol., Uranium mur. 2. Chloroform, Curare, Morphium, Uranium nitr., Fel tauri rec., Natr. bil., Bovista, Chimaphila, Erigeron, Eupat. perfol., Geranium, Hydrastis, Senecio, Trillium, Natrum sulph., Thuja. As dietetic remedies: Glycerin, and especially skim-milk. The following substances cause sugar in the urine: Canthar., Coca, Tereb., Opium, Morph., Curare, Chin. sulph., Asclep., Uran., Arsen., Plumb., Merc., Antim.

Oehme (*N. A. J. of H.*, xxii, 128) also parades a large list of remedies as of benefit in diabetes: Carbol. ac., Kreasot, Helonias, Hydrogen hyperoxyd, Phosph. acid, Plumbum, Uranium. Next in order: Bell., Ars., Sulph., Calc. Finally, Asclep., Canth., Coloc., Cupr., Magnes., Moschus, Nux vom., Ratan., Sulph. ac., Tereb., Arg., Chinin., Lycop., etc., etc. Oehme truly remarks, that in many instances a careful enumeration of such symptoms as characterize each individual case has been neglected for the symptoms common to all cases of diabetes. In consequence of this neglect much opportunity has been lost to establish the indication for each remedy. (Most probably the remedy for each given case was selected on account of the individual symptoms plus the diabetes.)

Kafka (*Hom. Therapie*, II, 713) has only confidence in Arsenicum and Phosph., as they show in their pathogeneses the excessive thirst, the canine hunger, the emaciation, the paleness and brittleness of the skin, the loss of strength, and the tendency to necrotic destructiveness, far more than the Argent. fol. recom-

mended by Hahnemann. Our only *reliance must still remain the symptomatic treatment of each individual case,* as the examination of urine has been usually neglected by the provers.

Baehr (*Therapie,* I, 685) mentions Arg. fol., Arsen., Plumb., Sulph., Cupr., China, Kreas., Lach., Uran.

Jahr (*Forty Years' Practice,* 170) found for glycosuria, which is apt to terminate in pulmonary phthisis, Phosph. acid, and not unfrequently Plumb. and Arg., and also Carb. veg. and Phosph., very efficient; in some cases he derived much benefit from Sulph., Merc., and Aurum as intercurrent remedies. For milky urine he employs Phosph. acid, Carb. veg., Dulc., Mur. ac. For too copious a discharge of urine (polyuria) without any chemical alteration of the urine itself, Sulph., Rhus, Natr. mur., Sil.; and if the patient has to get up frequently at night, Sulph., Sep., Sil., Ars., Natr. mur., Rhus, Calc.

Espanet (*La Pratique de l'Homœopathie,* 1874, p. 73) favors at the beginning of the disease Phosph. ac. and Sulph.; at a later period Apis, Calc., and especially Arsen.; also Carburetum sulphuris and Uran. nitr. But after all, *the concomitant affections must decide the choice of the remedy.*

Granier (*Homœolexique,* I, 513): The remedies which he mentions for diabetes still leave a great deal to be desired. Thus he can only find in Arg. met. frequent desire to urinate. He thinks much of *Ledum pal.,* which he employs after Dulcamara, when suppression of the cutaneous secretion caused the disease, with painfulness of the extremities and of the whole body, as if they were pounded and bruised; aching in the small of the back, especially in the renal region; sleep interrupted by the frequent calls to urinate; ill-humored and angry; loss of appetite; nausea from the start; soft stools. *Nux vom.* he considers of great importance, as it covers so beautifully the whole complex. *Natrum,* especially Natr. mur., corresponds to the most salient symptoms of diabetes. Where loss of fluids or where anger and vexation caused diabetes, with loss of appetite, headache aggravated by every step, great weakness and heaviness of the legs, there Natrum will bring relief. In later stages we find the following symptoms: Frequent urination, spoiling the night's rest; total loss of sexual power; dry stools or constipation; drawing pains

in the left side of the abdomen, towards the pelvis; restlessness, and fear for the future. *Squilla.* Its diuretic power is more an alternate than a consecutive effect. Canine hunger, excessive thirst, constipation, casual erethic pains in the chest. *Veratrum alb.* Diabetes, with excessive thirst and hunger, headache, intense coryza, bellyache, borborygmi, constipation, involuntary emission of urine. *Carbo animalis* corresponds far more to diabetes than Carbo veg. It has the characteristic urea and the absence of all sexual desire; difficult, hard stool in small pieces; normal appetite, but great desire for fresh or sour things. *Ammonium* is not only palliative but also curative.

Hughes (*Brit. Journ.*, xxiv, 257) considers Argentum and Squilla only remedies for polyuria, but not for diabetes mellitus. He further says that certain medicines exert a specific influence over the formation of sugar, as *Natrum sulph.*, but the urinary symptoms by no means point to diabetes, as they indicate a copious deposit of lithates, which are nearly always absent from saccharine urine. *Asclepias vincetoxicum.* Dr. Gallavardin's five patients were all, more or less, affected with gout. It speedily relieved these patients by reducing their thirst, and the quantity of urine greatly diminished. *Phosphoric acid* stands unquestionably in the highest place among the remedies for diabetes. It exerts its specific action in all dilutions, though more markedly in the lowest. We must also not forget its powerful action on the nervous centres, in the derangements of which the disease often essentially consists. *Nitrate of uranium* gives the nearest approach to the true homœopathic specific for diabetes, according to many cases reported in different journals. Still Dr. Blake, in all his experiments on men and animals, found no sugar eliminated in the urine, but ulceration in the stomach and duodenum was most markedly displayed in the neighborhood of the pylorus.

Ruddock (*Text-book of Hom. Practice*, p. 321) gives as symptoms of *Acid. phosph.*, frequent urging to urinate, pain in the loins, emaciation and prostration. Particularly valuable in cases of nervous prostration, *Uranium nitricum*, Terebinthinæ, Arum trpihyllum, Helonin, Muriate of quinine, Plumbum. Concomitant symptoms may require Ars., Dig., Nux v., Canth., Eupat. purp., Chimaph., or Mercur.

Pulte (*Domestic Physician*) mentions after Phosph. acid, Merc., Sulph., Carb. veg., Conium, Hydrastis, especially *Bebeerin*, for periodical increase and decrease of diabetic symptoms, if the patient is reduced in flesh and strength, his mind depressed, and sexual desire gone.

Buchner (*Hom. Klinik*, 1873, p. 951) recommends Phosphoric acid for atrophy of the pancreas in combination with diabetes; for softening of the pancreas, Kreasot; and in the fatty proliferation, Phosphor. and Silicea.

Goullon, Jr. (*Prize Essay on Diabetes Mellitus*, 1872): We give the remedies as found in this monograph. *Kreasot*, the great antiseptic, promises well in all diseased states where detrition and decomposition of the fluids as well as of the solids takes place in the animal organism, as in the tuberculous, cancerous, and hepatic dyscrasia. By coagulating the albumen it becomes a hæmostatic. Considering Kreasot the sovereign remedy for diabetes, Goullon gives all the symptoms of this remedy characteristic of the disease in question:

KREASOT.	DIABETES.
Pains, as if bruised or contused, as after running a good deal. Heaviness in all the limbs, with drowsiness and weariness.	Sensation of increasing weakness and lassitude.
Depression of spirits, ill-humor, constantly excited, vexed, and obstinate; frequent failure of thought, the head feeling confused and dull; weakness of memory.	Hypochondriasis; sad mood; decrease of memory.
Dimsightedness, as through gauze, with dim, faint eyes; burning and heat in the eyes.	The use of the eyes may be entirely lost from the steady decrease of the turgor vitalis (cataract, amaurosis).
Sour eructations; flat, bitter taste. Appetite with sensation of fulness, as if she had eaten too much; on taking her breakfast later than usual, she is attacked with gnawing at the stomach, succeeded by a choking sensation, which passes off after eating Intermittent stool, hard, dry, with a good deal of pressing.	Acidity is so characteristic of diabetes that many consider the diminished alkalescence the essence of the disease. With increased hunger and thirst, we still meet a disturbed digestion. The laws of assimilation are changed. Most characteristic is the impossibility to use up the sugar. The stool is mostly constipated, hard, and dry.
Frequent desire to urinate, with copious emissions; frequent micturition, also at night, with copious emission of hot, clear urine; passes copious quantities of clear urine every hour; sudden urging to urinate, six	The excessive urination is characteristic of the disease. The urine is clear, without color in the higher grades of melituria.

KREASOT.	DIABETES.
and seven times a day, with copious discharge; clear urine, with copious discharge; has a bad smell and no color. After standing, it looks like the sediment of small beer in a brewer's tub.	
Burning in the sexual organs, and impotence during coition.	Impotence is a constant sequela of diabetes.
Scraping and roughness in the throat; chronic catarrh; difficult breathing; shortness of breath; bruised sensation in the chest.	The respiratory organs, especially the lungs, are constantly exposed to the danger of tuberculous processes.
Pains as if the small of the back would break; labor-like pains in the small of the back. Pain in the small of the back and in the lumbar vertebræ, with strong urging to urinate; drawing tension between the scapulæ; pain in the lower extremities, as if bruised, or as if tired after walking.	Diabetic patients complain especially that the back and lower extremities feel as if they were bruised. The muscles of the lower extremities feel flabby and emaciated.

ARSENICUM.

Mosthoff (*A. H. Z.*, 33, 108) remarks that we meet in Arsenic an inhibition of organic activity similar to paralysis, and a tendency to profuse chemically alienated secretions. Jousset characterizes true diabetes by its tendency to tuberculosis and gangrene, and Arsenic gives us fully the ulcerating process with atony and gangrenous cancer. The spinal marrow and medulla spinalis are primarily affected by Arsenic, secondarily the brain, the skin, the urinary organs, the intestinal tract. Periodicity is characteristic of Arsenic, and diabetes also remits and intermits. *The great characteristics of Arsenicum are paralysis and decomposition.*

ARSENICUM.	DIABETES.
General rapid sinking of strength; excessive debility, especially in the lower extremities; he cannot even walk a few steps. Emaciation, consumption, phthisis. No inclination to do anything. Melancholy sadness; ill-humor, with hypochondriac uneasiness, fear, anguish, despair, great sensitiveness. Diminished memory; forgetfulness; mental weakness; stupefaction. Vertigo; weakness of the head, with inability to think.	Remarkable decrease of strength; rapid fall of the weight of the body. Chronic ill-humor; tired of life; hypochondriasis; fear; loss of all moral courage; constant decrease of mental activity and power.
Burning in the eyes; ophthalmia; specks and ulcers of the cornea; faint, lustreless, staring eyes; dryness of	Decrease of visual power, *pari passu*, with the intensity and progress of the diabetes.

ARSENICUM.	DIABETES.
the lids; lachrymation; photophobia; weakness of sight; dimsightedness, as through a white gauze; he does not recognize the persons around him; vibration of light before the eyes, and obscuration of sight; almost complete blindness, with dulness of sense.	
Sunken countenance; pale, death-like face, yellow, livid, lead-colored, with sunken eyes, surrounded with blue margins, and pointed nose.	Cachectic, unhealthy, suffering countenance, corresponding to the waning powers of life.
Tongue red, dry, cracked, and trembling; dry, cracked lips; foul breath; excessive dryness, with unquenchable thirst; sensation of rawness of the fauces; the gums bleed easily.	Seegen compares the tongue of a diabetic patient with a mass of drying clay which cracks during the contraction. Tormenting thirst, as in all diseases rapidly consuming the watery parts of the body (cholera). Hæmorrhage and scorbutic gums.
Bitterness of the mouth. Dry, salty, foul, sour taste; violent, unquenchable, burning, suffocating thirst; desire for acid things, for cold water; weakness of digestion; pressure at the stomach; eructations; frequent empty sour eructations after a meal, better after eating; waterbrash; vomiting of green, bitter mucus, and of an acrid fluid; internal burning heat and thirst; bloatedness of the epigastric region; distension of the gastric region, with feeling of repletion; swelling and painfulness of the hypochondria; colics, which return from time to time.	In spite of the nearly pathognomonic hunger and canine hunger, insufficient digestive power; lasting distension of the walls of the stomach; manifold gastric symptoms; burning, acid eructations, and sensitiveness of the epigastrium.
General anasarca; burning and burning-itching; parchment-like dryness of the skin; petechiæ; urticaria; miliary eruptions, with itching and burning; itchlike eruption; pustules, fine, like sand, itching, changing to crusty, ichorous, burning, and spreading ulcers; putrid and mortifying ulcers, with foul-smelling ichor and proud flesh.	Absolute inactivity of the skin; furunculous exanthemata; anthrax and tendency to decubitus. All wounds heal badly on account of the absence of all reaction. Itching eruption on the back and on other parts of the body.
Frequent urging to urinate, with emission of a quantity of urine at night, obliging him to rise frequently; involuntary micturition, also at night, during sleep; copious, colorless (but also jumentous) urine. After urinating, sensation of weakness in the epigastric region, with trembling.	Polyuria is nearly always present, and inclination to urinate frequently, day and night.
Inflammation and swelling of the sexual organs, even to mortification; blue, red, swollen glans, with rhagades. Nocturnal emissions, with or without lascivious dreams.	Total prostration of all virile power.

ARSENICUM.	DIABETES.
Hoarseness, with roughness, sensation of dryness and burning in larynx; rough voice; difficulty of breathing; fits of suffocation; dry cough, suffocative oppression, and arrest of breathing, with debility and excessive lassitude.	The different symptoms of beginning tuberculosis, from simple chronic catarrh of the respiratory organs to hasty consumption.
Debility in the small of the back; sensation as if bruised by blows; painful stiffness; drawing pains in upper extremities; coxagra; heaviness in the legs; cold sensation in the soles.	Continual heaviness and painfulness of the sacral region and between the shoulders; painfulness of some dorsal vertebræ to pressure, like spinal irritation.

The interesting experiments of Saikowsky, where, after the use of arsenious preparations for several days, the animal liver lost all traces of glycogen, insure to Arsenic its proper place as an antidiabeticum. Of equal importance is the observation of Heller, that sugar is found in the urine after the use of Arsenic. Compare Grauvogl (*Lehrbuch der Homœopathie*, II, 175) and Kafka (*N. Z. f. h. Klinik*, II, n. 24).

URANIUM.

Quantities of sugar found in the urine led to the employment of Uranium. Orfila (*Toxicology*, II, 59) has the following: Uran. salts possess a strong astringent taste, not metallic, not yellow. The yellowish-white Kali gives a yellow precipitate to the solution. The soluble carbonic salts give a lemon-colored precipitate; they do not become turbid by HS. Combination with Sulphur gives a blackish precipitate of Sulphate of uranium; Ferrocyanide of potass. gives a blood-red one; and an infusion of nutgalls a chocolate-colored precipitate. These salts show very little action on the stomach, and only in a very large dose do they cause vomiting. Brought into the venous system, they produce death by destroying the irritability of the heart and by coagulating the blood. Nitrate of uranium does not coagulate the blood. Husemann (*Toxicology*, 1862, p. 909) emphasizes the large quantity of sugar in the urine, the suppressio urinæ, constipation, and post-mortem accumulation of blood in the venous circulation, serous effusion in the right heart, and gastritis.

Dr. Blake (*Hahnemann Materia Medica*, Part II, 1871) gives us the following symptoms:

General languor, debility, cold feeling, vertigo; fulness of head, and sensation of blood flowing to that part before menses; purulent discharges from eyelids and nostrils, with ulceration of cheeks from the acrid discharges; copious salivation, red spots on hard palate, which feels raw; vomiting, with great thirst; tasteless eructations; very thirsty, with dislike for meat; putrid eructations; borborygmi; urgent desire to evacuate bladder and rectum; burning in the urethra, with very acid urine; desire to urinate again immediately after voiding bladder; copious chlorides; micturition increased in frequency; cough, with purulent discharge from left nostril; loss of appetite and great prostration; lung infiltrated with gray tubercle, no vomica; congestion of lung; pain at lower angle of left scapula, aggravated by taking a deep inspiration; stiffness in loins; small white vesicles, with red areolæ on hands and legs, they burn and itch; extreme languor on rising from bed, with fishy odor of urine; prostration, somnolence, and shivering during the day, restless at night; ill-temper, he is cross at everybody, with general malaise. General nutrition was modified more or less in all the animals under treatment; in some it appeared to be entirely arrested.

PLUMBUM.

The most characteristic physiological action of lead consists in its strongly contrasting *dryness* and *brittleness*, just as we find it also in diabetes. Furthermore, heaviness of the extremities, lassitude, great feebleness, steady decrease of nutrition; a general cachectic state; dingy, icteric color of the skin; gangrene; fever, with unquenchable thirst; lowness of spirits, anguish, and deep melancholy; great fear; diminution of the visual power; mistiness of sight; great dryness of the mouth; dry cracked tongue; feeling of contraction and constriction of the throat; constipation; pressure in the stomach; diminution of sexual desire; primary action in relation to urinary organs, diminution or entire suppression of the secretion of urine, retraction of urine; secondarily, frequent urging to urinate, frequent micturition. The same is in reality the case in diabetes, as the increased urination is caused by the forcing quality of the sugar; the polyuria is, therefore, a secondary symptom, which has nothing in com-

mon with the original state of the disease. In fact increased urination is not a constant symptom of diabetes; for there are enough cases on record where the quantity of urine did not exceed the normal. Jousset considers Plumbum the simile to albuminuria, inasmuch as chronic lead-poisoning gives a perfect picture of Bright's disease (*Elements de Médecine Prat.*, I, 138). Haller (*Archiv*, Feb. 1852) remarks that after the use of lead sugar is found in the urine.

ARGENTUM.

Great lassitude; sensation of heartburn; painful sensation of hunger in the stomach, not relieved by eating; excessive appetite; pressure in the pit of the stomach; discouraged; dry, sandy stools, but also a soft one; frequent desire to urinate, with copious emissions of urine; pain in small of back, as if bruised; tearing, drawing rheumatic pains; absence of sexual desire, with atrophy of the sexual organs; paralysis. (We fail to see the similitude to glycosuria; it might perhaps do for polyuria.)

ACIDUM SULPHURICUM.

Lassitude, tired sensation, debility; despondency, great apprehensiveness, ill-humor, and irritability; great absence of mind; oppressive dulness of the head; itching over the whole body; dimsightedness, shortsightedness; rough throat, pricking and scraping in the throat; increased appetite; flatulency after taking milk; empty (acid) eructations; bitter eructations; rising of water from the stomach to the mouth; pressure at the stomach; violent contractive pain in the stomach; stitches in the hepatic region; retention of urine and stool (primary effect); constant desire to urinate; increased urination; urine clear as water; relaxation of the scrotum; erection in daytime, without lascivious thoughts; shortness of breathing, hoarseness, dry cough. Sulphuric acid in small doses diminishes the thirst. Its beneficial action in diabetes can be explained from its favorable influence on typhoid processes; there are forms of diabetes which have everything in common with typhus, and nearly nothing with diabetes, except the symptom of melituria.

ACIDUM PHOSPHORICUM.

Debility from loss of animal fluids; bad effects from grief, anguish, sorrow, and care; all the joints feel bruised; very sensitive to fresh air; the heat of the bed feels good; emaciation; heaviness; lassitude, inactive; oppressed spirits; weakness of mind; formication over the whole body; sudden itching over the back; great falling out of the hair; weakness and dimness of the eyes; excessive thirst; acids cause eructations and other troubles; pressure in the stomach; sensation of heaviness in the liver; hard, difficult stool; no stool; soft stool; mucous stool; desire to urinate; frequent and copious urination; frequent micturition, the urine being watery, and he can hardly hold it; absence of sexual desire; erections, without any sexual desire; oppression of the chest, shortness of breathing, he cannot talk for any length of time.

The action of Phosphoric acid in colliquative processes, on the organs of generation, and over the whole sexual sphere, is too well known. Where caries complicates a case of diabetes Phosphoric acid will be found suitable, on account of its action on the osseous system.

NATRUM SULPHURICUM.

The Glauber salt forms a chief ingredient of the Carlsbad thermal springs (Na_2CO_3 : 13,6; $MgCO_3$: 4,2; Na_2SO_4 : 25,2; Na Cl : 10,3; CO_2 : 7,6; $FeCl_3$: $O_{,03}$). It is also Grauvogl's specific for the hydrogenoid constitution. It affects primarily in its physiological action the intestinal mucous membrane, the glandular tissue, the portal system, and the biliary canals, and removes stasis in the portal system. Hahnemann considers it a great antisycotic remedy.

C. Hering, in the first volume of his *Materia Medica*, gives us the following symptoms: Very much depressed, irritable, taciturn, disheartened, tired of life; dulness in the head, with feebleness and vertigo; weakness and dimness of eyes; glittering, small yellow-pointed bodies before the eyes; crawling sensation in the eyes; great dryness and burning in the eyes; ophthalmia granulosa; ozæna, epistaxis; pimples and blisters on face and

lips; redness of the gums and dryness of the mouth; burning blisters on the palate; dryness of the throat, as if she had not enough saliva; a feeling of contraction in the throat; great thirst for something very cold; voracious hunger, with a boring pain; hunger, but no appetite; disgust while eating; after dinner grumbling and fermenting in abdomen, with emission of fetid flatus; hiccough; constant rising in throat of sour water; after vomiting extreme feebleness and a boring headache; urine increased so that she had to get up several times at night; short breath when walking, relieved by rest; frequent cough, with some expectoration; cough, with purulent expectoration; coughing up blood; pains in small of back, with burning urine.

ALUMINA.

Aegidi considers Alumina a specific for tabes dorsalis, and it might offer some chances in diabetes. We find in Alumina depression of strength and lassitude; disinclination to work; absence of mind; unsteadiness of ideas; corrosive itching of the whole body (especially on the back and between the shoulder-blades); anxiety, despondency, ill-humor; great forgetfulness and continued loss of memory; dulness of head; dryness and falling off of the hair; dimsightedness, as through a mist; dryness of the mouth; acid taste in the throat; irregular appetite, either too strong or too weak; hunger, without appetite; heartburn, water-brash; empty acid eructations; twisting and constriction in the stomach; soreness of the liver; hard and difficult stool; diarrhœa, attended with tenesmus; pains in the lumbar and renal regions; frequent desire to make water, with an increased secretion of aqueous urine; sexual desire increased or suppressed; pain as from bruises in the small of back; heaviness and debility of the extremities.

As we thus meet under Alumina many of the symptoms of diabetes, this remedy also might find a place in the treatment of this disease, if the concomitant symptoms fill up the picture.

Remedies from the Vegetable Kingdom.

BELLADONNA.

Belladonna possesses eminent pathogenetic peculiarities which in a certain sense make it appear the Arsenic of the vegetable kingdom. These are the erysipelatous and pseudo-erysipelatous inflammations of the external and internal skin, the severe, burning, suffocating, and unquenchable thirst and excessive sensation of dryness, the numerous morbid phenomena of the visual organs, even to blindness, the stupefaction, the rheumatic pains and symptoms of great lassitude, heaviness in all extremities, sensitiveness to the fresh air, melancholy, alternating with choleric irritability, rapid forgetfulness, gastric difficulties, irregular stools, suppression of urine (primary action also of Arsen.), frequent inclination to micturate, with finally copious discharge of pale, watery urine, incontinentia urinæ, *sexual desire entirely abolished*, and total disgust for lascivious ideas or pictures. *Cæteris paribus*, we think of Bell. where we have to deal with plethoric, juicy, erethic patients (especially of the female sex), with predominance of the arterial system. Heinigke (*A. H. Z.*, 19, No. 7) publishes a beautiful case of diabetes based on repelled erysipelas.

ASCLEPIAS VINCETOXICUM.

Allen, in his *Encyclopedia of Materia Medica*, I, 590, gives us only Asclepias syriaca and tuberosa. The former shows polyuria decidedly, but no glycosuria, for we find increased flow of pale-colored urine of lighter specific gravity than usual.

The *Asclepias tuberosa* gives us mental prostration, difficulty of thinking, weakness of memory; head feels dull and gloomy; alopecia; eyes fatigued and heavy; blepharophthalmia; disturbed vision; large dark spots before the eyes; yellow complexion of the face; *bleeding of the gums;* fetid breath; taste of blood in the mouth; slight constriction in the throat, and pricking in the larynx; *insatiable hunger*, eructations, and burning borborygmi, soft and fetid stools preceded by rumbling in the bowels; very red urine, mingled as it were with blood; *weak-*

ness of the genital organs; erections, without desire; dry cough, with constriction in the throat; oppression of the chest; great difficulty of breathing; lung dull on percussion; *great emaciation,* with extreme lassitude and disinclination for any work; the legs can hardly support the body; drowsiness and somnolence. (According to these symptoms the "pleurisy root" ought to cover many cases of the later stages of diabetes, when the scorbutic cachexia has made its deep impression.)

Of the *Asclepias vincetoxicum* Goullon remarks: The opportunity of prescribing this remedy is more frequent than we should believe. Diabetes is an insidious disease, and many a time the disease is not recognized, because the persons attacked by it are yet of strong constitution, and keep up for a long time their good color and their strength. Every pot-bellied and strong-looking man, who eats and drinks well, who is frequently pestered with furuncules, or even passes through the misery of an anthrax, whose gums are flabby, who suffers from gravel, from lumbago, or ischias, must be carefully watched, and physical and chemical examinations not neglected; by and by many such patients emaciate and lose all strength. In all diseases where the symptoms fail to show any decisive character, we must not forget a possible diagnosis of diabetes; in no disease are appearances more deceitful and death more unexpected.

NUX VOMICA.

Most diabetic patients are good livers, or men of sedentary habits, and Nux vomica is well known to act favorably on such patients; it also (Arsen., Chininum) gives us the periodical intermittent forms of diseases, to which diabetes also belongs. Gastric and bilious states also indicate Nux vom., which stand in decided relations to the spinal cord and its motory nerves, and secondarily to the pneumogastricus and to the whole splanchnic nervous system. Symptoms of hectic fever frequently indicate Nux vom. Acidity with its dyspeptic troubles are found in diabetes, and in Nux also constriction of the throat, dry cough, pains in the small of the back and in the back, numbness, hoarseness, and a paretic sensation in the lower extremities, tottering and unsteadiness. The urinary symptoms are similar to those of Bell. We

even find (after ineffectual desire to urinate) frequent urination, and he emits more urine than corresponds to the quantity of fluid taken (a curative effect, according to Hahnemann). The sexual desire is strong and excited. The genius epidemicus may also hint at the application of Nux vom. (The concomitants may indicate this remedy far more than the diabetes itself.)

WOURARI.

"La mort arrive par une paralysie progressive du système moteur et l'asphyxie détermine ensuite la mort du système sensitive et des centres nerveux." If it is true that diabetes arises when the paralysis from the peripheral nerves gradually creeps up to the central nerve-roots, then Curare ought to be the grand remedy for this disease, as saccharine urine was found by the provers of this poison. It seems remarkable that Humboldt considered sugar an antidote to Curare. In Houat's pathogenesis we find the following symptoms: Great weakness of body and mind; excessive emaciation; yellow, gray, dirty-looking skin; frequent furuncles in the face; furuncles on the back, returning over and over; swelling of the feet, with abscesses; tendency to gangrene; amaurotic weakness of the visual organs; great thirst and morbid appetite; copious, hard stool, discharged with straining; perfect absence of all sexual desire; light-colored urine; frequent micturition, with crampy sensation in the kidneys; dry mouth and great thirst, especially in the evenings and at night; diabetic urine, with great emaciation.

SECALE CORNUTUM.

Great general lassitude; heaviness of the extremities; loss of all strength; paralysis; emaciation; rapid and general consumption; gangrenous blisters; ergotismus gangrenosus, fingers and toes drop off; dry, brittle, withering skin; furuncles; petechiæ; gangrene spreading rapidly over the body; true anthrax on the extremities; dry, cold gangrene; fever, with unquenchable thirst; excessive lowness of spirits and loss of strength; continual discouragement and fearfulness; decrease, dulness, and complete vanishing of the senses (sight, hearing); alopecia; blindness, amaurosis, great darkness before the eyes, diminished visual power; mouth dry,

with thirst; tongue clean, but also discolored, brown, finally black; dryness of the throat, tingling, severe burning; morbid appetite, insatiable and unnatural (especially for acid things); in spite of the large quantities consumed, nutrition flagging; voracious continual hunger, with waning mental faculties; unquenchable thirst; heartburn, waterbrash; vomiturition and vomiting of bile; painfulness of the epigastric region; pressure in the pit of the stomach; severe gastralgia, hepatitis, constipation; painful diarrhœa, with rapid sinking of strength; suppressio urinæ in spite of great tenesmus; urine clear as water; increased urination (secondary effect, vide Plumbum); difficult and anxious respiration; the pathogenesis of Secale contains nothing in relation to the male sexual organs.

USTILAGO MAIDIS. (*Hale's New Remedies*, p. 434.)

Great depression of spirits during the whole proving; dryness of the nostrils; burning sensation of the face and scalp; dryness of the fauces, with difficult deglutition; loss of appetite, followed by canine hunger; eructations of food strongly acid; eructations of the ingesta; burning distress in the sternum and stomach; grumbling pain in the abdomen, followed by dry, hard stool; black, lumpy stool; urine diminished, very red and scanty (primary); great increase of colorless urine (secondary); great *depression of the sexual organs for weeks*, with great relaxation of the scrotum; one to four emissions, with sexual dreams every week, followed the next day with great prostration of strength; dull pain in the lumbar region, with great despondency and irritability of mind; terrible itching of skin at night.

(As the smut of corn shows such decided symptoms of depression in the sexual organs, may we not expect that it thus fills up the missing link in the pathogenesis of the smut of rye, and that, if Secale would be reproved, we might find similar symptoms in the provers? The fungus grown on either grain belongs to the family of mycetes, that of Secale being Claviceps purpurea, that of Ustilago coniomycetes. We give this hint for what it is worth, for we know well enough, that substitution is foreign to homœopathy.)

CHININUM SULPHURICUM. (CHININUM ARSENICOSUM?)

This remedy is highly thought of in the treatment of melituria by allopathic physicians, who even allow a mixed diet and still observe a diminution of the sugar and increased vital power during its use. It is well known as the great tonic for low nervous activity, and the sheet-anchor in remittent and intermittent fevers. It is also well known that diabetes may arise from the action of malarious poison. The brain, the urinary and genital organs, the extremities, and lastly the skin are principally affected by it, and it is known that sugar has been observed in patients under the influence of Chininum. We find among its symptoms, fetid suppuration; gangrenous mortifications; flaccid skin, hanging loose about the bones; great despondency and inertia; decrease of the mental faculties; dimsightedness, as if looking through a gauze, with dryness of the eyes; transitory amaurosis; weakness of hearing, with humming in the ears; pale miserable complexion; dryness of the fauces and mouth; scorbutic affections and hæmorrhage from the gums; feeling of dryness in the throat-pit, with sensation as of a foreign body being lodged there; canine hunger also at night; dyspepsia, loathing of food, vomiting, heartburn; obstinate constipation; desire to urinate, with copious emission of aqueous urine; copious emission of saturated turbid urine, with a strong urinous smell; foaming urine; suppression or diminution of the sexual instinct; oppression of the chest; drowsiness in daytime, and unrefreshing sleep at night; great weakness and prostration. (We miss in the pathogenesis of Quinine the unquenchable thirst of diabetes, although even this symptom may be absent in some cases of this disease.)

HELONIAS DIOICA. (*N. A. J. of H.*, xxiii, 490.)

Dr. S. A. Jones gives the following excellent résumé:

Dull, gloomy, and irritable; abject despair; restlessness; mind dull and inactive; profound melancholy; deep and undefined depression of mind; tongue and fauces dry, with a bitter, disagreeable taste in the mouth; white tongue; tasteless eructations; loss of appetite, eructations; fulness, cramp, and painful

congestion of the stomach, with depression of spirits; burning sensation in the bowels; yellow and mushlike stool; frequent and urging desire to urinate; large discharges of urine, which contains albumen and has a slightly increased specific gravity; the reaction of the urine changed from alkaline to acid; languor, weariness, and weight in the region of the kidneys; painful stiffness of the back and lumbar region; much burning, scalding pain when urinating; frequent and urging desire to urinate, with emissions of large quantities of red urine; complete impotence; atony of the generative organs; burning in the back, between the shoulder-blades, and a tired aching in the lower lumbar and sacral regions; pain and feeling of lameness in the whole back, with dryness and bitter taste in the mouth; back lame and aching; warm numbness in the legs, most marked in knees; numbness in the feet, going off by motion. Hale and others report cures of melituria by the steady use of Helonin.

HALE'S NEW REMEDIES.

Dr. E. M. Hale (*Characteristics of New Remedies*) recommends in diabetes the study of the following remedies: Apocynum cann., Cimicifuga, Gelseminum, Hydrastis, Sanecio, Brom. potass., Chimaphila, Erigeron, Eupatorium purpureum, Helonias, Lycopus, Trillium, Veratrum viride. We doubt the applicability of many of these to true diabetes, although some of them might be of use in simple polyuria. Let us see how the symptoms stand.

Apocynum cann.—It causes primarily increased secretion and elimination, followed secondarily by the opposite condition. Unusual heaviness of the head, with dull aching pains in the small of the back and limbs; dryness of the mouth and tongue, with nausea and thirst; sinking at the stomach; dull aching pain in the region of the kidneys, with increased secretion of straw-colored urine; no sediment in the urine (primary); scanty urine, with little expulsive power in the bladder, and slight dyspnœa; torpid action of the kidneys (secondary); short dry cough with scanty expectoration; diabetes insipidus. (We have used the Indian hemp with decided temporary benefit in morbus Brightii, but do not consider it indicated in melituria.)

Cimicifugu (*Actea racemosa*).—Great melancholy, with sleeplessness; a heavy black cloud settled over her and enveloped her head, so that all was darkness and confusion, while at the same time it weighed like lead upon her heart; indifference and taciturnity; sensation of enlargement of the eyeballs; dilated pupils with black specks before the eyes; double vision; amaurosis; offensive breath; dryness and soreness of the lips, with swelling of the back part of the tongue; faintness and emptiness in the epigastrium; flatulence, causing sensation of fulness in the abdomen; constipation; fæces hard and dry; frequent urination, with increased flow; pain and tenderness of the testicles; many ovarian and uterine symptoms; dull heavy aching pain in the small of back, relieved by rest, increased by motion; lumbago; sciatica; suppression from a cold; rheumatic pains and fever. (The black snakeroot is a most valuable remedy in many mental troubles, especially of females; it is equally valuable in all affections emanating from catching cold and checked perspiration; hints enough to make us think of it in many cases of diabetes. In the examination of insane persons the examination of the urine has been too much neglected, and I rather think that in many cases of paralysis in the insane, with its evil prognosis and rapid emaciation (tuberculosis), we would find more than mere traces of sugar in the urine. Our provers owe to pathology the debt not to neglect physical and chemical examinations in their provings. They certainly cannot detract from their value and usefulness.)

Chimaphila umbellata.—We can only make out catarrh of the bladder, and not a symptom of melituria.

Erigeron canadense.—We cannot find any symptoms hinting at true diabetes or even at polyuria. It is a hæmostatic by causing contractions of the muscular coats of the arteries, but has no scorbutic symptoms, no emaciation, no dry skin, in fact nothing that indicates diabetes.

Eupatorium purpureum.—Dr. Hale considers it primarily homœopathic to diabetes insipidus (polyuria), but it has no claim as a remedy for melituria, and even the eclectics mention only polyuria as curable by it.

Gelseminum nitidans.—Holcombe remarks as Gelseminum

holds a position midway between Aconite and Belladonna, and Dr. P. P. Wells considers it related to such fevers as are based on a blood-dyscrasia, or to fevers of a miasmatic origin. Its value in neuralgia has been proved many a time, but we cannot see its indications for glycosuria, a chronic disease insidiously appearing and slowly developing itself.

Hydrastis canadensis gives only a very slight apparent similitude to the symptoms of true diabetes. In diseased states where the golden seal acts well, as caused neither by nervous depression nor by abnormal action of the glandular system, we find rather the mucous membrane stimulated to higher secretion, even to erosion and ulceration (the ulceration of diabetes is caused by a paretic state of the cutaneous nerves). The decomposed smell of the urine is caused by the chronic catarrh of the bladder, and not by sugar. After the removal of the diabetes Hydrastis might come in to invigorate the muscular tissues, and thus by increasing the peristaltic motion cure the obstinate constipation so characteristic of Hydrastis.

Lycopus virginicus is the great remedy for morbus Basedowii, with its palpitations, its exophthalmos, and goitre, and at any rate we have here to deal with a neurosis of nearly the same nerves which are affected in diabetes mellitus, namely abnormal innervation of the sympatheticus and vagus. The eclectic Dr. King found it decidedly beneficial in diabetes (which kind?) when all other means were useless, and Dr. Hale witnessed its tranquillizing influence in chronic diseases of the respiratory organs attended with hæmorrhage. But where are the symptoms corresponding to any diabetes? From Hale's pathogenesis we are unable to gather them.

Senecio aureus has congestion and inflammation of the kidney, pain in the loins, and bloody urine, but in diabetes the kidneys might become hyperæmic from the irritation produced by the sugar, but we find no record of nephritis. It cannot be denied that this "female regulator" has some symptoms in common with Helonias, as sad, desponding mood, dull, stupefying headache, pale face with depressed appearance, dryness of the mouth, fauces, and throat, teeth very tender and sensitive, eructations of sour gas and sour ingesta, but still the characteristic symptoms of melituria shine by their absence.

Trillium pendulum.—Even Hale here asks the eclectic Dr. Jones, "Which kind of diabetes?" There is not even a symptom of polyuria given.

Veratrum viride!!! That is enough. We trust we have shown, that with the exception of Helonias and Uranium, not one of the remedies mentioned by Dr. Hale in the index is reliable in true diabetes; many not even in polyuria. Dr. Hale, the indefatigable and honest worker, has fairly won the honor of being considered authority in matters pertaining to our Materia Medica; it is therefore so much the more necessary to disclose his errors, whenever found, or else our young practitioners might be misled.

Goullon also mentions *Baccæ juniperi* and *Terebinthina* as remedies for diabetes. Of the former no proving is extant, and a very meagre one of the latter. Hughes (*Pharmacodynamics*, 539) considers the Turpentine our chief remedy in hyperæmia of the urinary organs. In simple renal congestion he considers it well-nigh infallible, and it may be of benefit in the nephritis from cold. In all cases recorded as cured by it, there was *suppression of urine*, and the immediate effect of the Turpentine was to make the urine freer and clearer, *i. e.*, it liberated the Malpighian capillaries from their congestive torpor, so that the aqueous portion of the urine was freely secreted, and the loaded tubes flushed of débris and cleared for action. Buchner (*Morbus Brightii*, 61) gives the following symptoms: Scanty secretion of urine; dark, sometimes bloody urine, coagulating by heat and Nitric acid; under the microscope cylindrical coagula, renal elements, oxalate of lime; large renal anasarca; irritability and debility of the intestinal tract; anorexia; copious mucous expectoration; physiognomy sallow, suffering, sunken. It may then be indicated when Bright's disease complicates or follows diabetes; but diabetes and suppression of urine are rather opposite states.

Remedies from the Animal Kingdom.

LACHESIS.

Goullon recommends it theoretically, and certainly where some of its keynotes are present, as "worse after sleeping; cannot bear the least touch on the throat," we would certainly think of La-

chesis, and study the case as to whether all the subjective and objective symptoms corresponded. At any rate, we find many symptoms of diabetes enumerated under Lachesis, such as despondency and melancholy, indolence, peevishness; mental derangements; faintness and dimness of the eyes, pale sunken face, livid-gray complexion, readily bleeding gums; gangrene of the mouth; sweetish taste succeeding the habitual sour taste; constipation; frequent micturition, with copious emission of foaming urine of a dark or also of a light color; violent urging to urinate, with copious discharge; absence of sexual desire; inability to perform the act of coition, on account of the erections being either entirely wanting or too weak, or on account of the seminal discharge taking place too slowly; difficult, suffocative breathing; laming pain and weakness in the small of the back; sinking sensation in the back, with weakness in the knees and bending of the trunk forward in walking, with cough and emaciation; gangrenous blisters on the skin; small ulcers are scattered all over; painful weariness all over, with emaciation; muscular relaxation, with exhaustion from the least motion or exertion; typical recurrence of the aggravations.

Aranea tarantula.—Jousset puts this under the remedies yet to be studied, but Nunez has given us a proving (*N. A. J. of H.*, xx, 389), where we find such symptoms as profound grief and anxiety; great prostration and pain, as if the whole body was bruised; general fatigue; passing an excessive amount of urine; great weakness and prostration, with general lowness of spirits; lassitude and pains in the hip-joints, wrists, and finger-joints; arthritic pains; loss of memory; dimness of sight; blue cast around the eyes, with pale face; bleeding of the gums; burning, constricting sensation in mouth and throat; dryness and roughness of the tongue; loss of appetite; ravenous hunger at night; loss of appetite, with general prostration and intense thirst; malaise; constant thirst; craving for raw articles; disgust for meat, and general wasting away; inextinguishable thirst, with dryness of the mouth; hiccough, pyrosis, weakness, and faint feeling in the stomach; constipation; unsuccessful efforts at stool; tenesmus, followed by three scanty passages; profuse micturition; pain in the kidneys; excitement of the sexual appetite; violent pain in

the lumbar region; paralysis of the inferior extremities; spots and aphthous abrasions on the skin.

Nunez says: The indication of *Tarantula* in diabetes is not only corroborated by several clinical cases, but it is evidently manifested in a large number of the pure symptoms of this medicine. The profuse micturition; the dryness of the mouth; the thirst; the hepatic symptoms; the icterus; the symptoms of the digestive canal, with vomiting of bile and food; the dyspnœa, vertigo, derangements of the mind, general weakness, particularly of the inferior extremities; the miliary eruptions, furuncles, phlegmonous inflammation, etc., point out the great value of Tarantula in diabetes.

Aranea diadema.—One of Grauvogl's remedies for the hydrogenoid constitution, where the patient finds himself worse in cold, damp weather, and where all diseases take on a more periodical or paroxysmal character, and we find many nervous troubles, aggravated by electrical disturbances. Bathing, washing, a residence near the water, aggravate all symptoms, inasmuch as hydrogenoid persons are always cold, and they need remedies which produce heat. Diadema has been recommended in intermittent fever with predominant coldness, and for passive hæmorrhages from every orifice of the body. Among its symptoms, hinting at melituria, we find: dulness of the head, languor and lassitude, with thirst, which constantly attends all other symptoms; weariness and pains in the bones; the skin does not perspire; great oppression and burning in the chest, as if the patient would smother.

Neither Apis nor Cantharides can be considered remedies for true diabetes, although Goullon mentions the latter among the clinical records. We have enough remedies, if we are only careful enough to apply the right remedy in the right place and at the right time.

ELECTRICITY.

Before closing our essay, we may be allowed to make some quotations from Eulenburg and Guttman's *Pathology des Sympathicus*. They say, page 188, that, "according to all experiments, it may be assumed that melituria is the consequence of a lesion

(paralysis) of the centrum of the vasomotory nerves, situated in the medulla oblongata. Thus diabetes arises after lesions of the uppermost cervical ganglion, of the lowest cervical and the first thoracic ganglion of the sympatheticus, after diversion of the spinal cord from the medulla oblongata to the lumbar vertebræ, where everywhere vasomotory nerves pass into the cervical and thoracic sympatheticus, or into the splanchnic. The hepatic vasomotory nerves partake in such an injury, and, in consequence of the paralytic state of these nerves, dilatation of the hepatic blood-vessels sets in, more blood is thus carried into the liver, and hence an increased production of sugar." (Cyon and Aladoff, *Bulletin de l'Académie Russe*, xvi, 4, p. 308.)

High authorities recommend, therefore, the galvanization of the sympatheticus for paralysis of the vasomotor nerves, as its beneficial action can be fully explained by the direct action of the current on the sympathetic system, and the influence of the latter upon the vasomotor nerves. With experience in the practice of this method, Moritz Meyer (*Electricity in its Relation to Practical Medicine*, p. 408), thinks it better to place one conductor on the inner side of the sterno cleido mastoid muscle, while the other is applied to that portion of the neck where the respective ganglion is affected by the greatest possible number of currents; then to apply both in the direction of the sterno cleido mastoideus.

LIX.

PATHOLOGY AND DIAGNOSIS OF BRIGHT'S DISEASE.

By Henry Noah Martin, M.D., Philadelphia.

The kidney, like every organ of the body having a mucous membrane, is liable to catarrhal inflammation, but being one of the most important of the excretory organs, such a lesion develops more important and disastrous results than that of almost any other, unless, perhaps, the liver may be excepted.

It is evident that, as in every other organ having a mucous membrane, an inflammation may be confined to a very small space or portion of the tissue, or it may spread slowly or rapidly to every part, or every part may be suddenly and at once involved.

Inflammations of the mucous membrane of this organ may be induced by the same causes which induce like results in any other mucous membrane, viz.: Sudden exposure to cold; excess in the use of alcoholic or other irritating drinks; abuse of diuretics; bruises upon the loins; the presence of renal calculi; and a morbid condition of the blood. Such a condition of disease is called nephritis, and it is perfectly compatible with this lesion to have albumen voided with the urine, and thus produce many of the symptoms usually found in Bright's disease.

Nephritis was hardly known up to the middle of the eighteenth century; indeed, no writer from Hippocrates to Sydenham's time makes more than an obscure mention of it.

In 1837 Dr. Bright, of England, through a series of observations, discovered a condition of the kidney sometimes existing,

hitherto not suspected, and Dr. Bright has been deservedly honored by his colleagues and the profession generally in the application of his name to the disease in question.

Morbus Brightii is now divided into three forms, viz.: the inflammatory, the waxy, and the cirrhotic.

The inflammatory form originates in the tubules, and has three stages, that of inflammation, that of fatty transformation, and that of atrophy. At any stage of its course it may prove fatal. The inflammation leads to an exudation which, pouring out in large quantity, affects a large number of tubules, thus enlarging the organ, and leading to fatty degeneration and destruction of the epithelium; its absorption leads ultimately to atrophy. In the stage of inflammation the organ is either natural in size or slightly enlarged; the capsule is unaltered, and the surface, after peeling off the capsule, is smooth, and according to the degree and kind of congestion, sometimes mottled, pale, and purple, or of a uniform pink or dark purplish color. The cortical substance is congested and relatively enlarged. The Malpighian bodies stand out prominently from the surrounding tissues, and are dense and granular. The congested vessels are separated by a whitish opaque deposit, composed of altered tubules. The cones are redder than the cortical substance, and the spaces between the cones and cortical substance are uniformly distended with blood; while from the engorgement of the vessels of the cones and the altered condition of their tubules, there is a series of alternating red and white lines which converge to the apex of the cone, where the white distinctly predominates. A transparent homogeneous material is exuded into the tubules, making them more bulky than natural; their epithelium becomes swollen, dense, and granular, and so the epithelium and tubules are bound together in one mass. It is not uncommon to find blood-corpuscles incorporated in this exuded material.

As fatty transformation takes place, the organ is enlarged; the surface continues smooth, but slightly lobulated, and the color has changed to a pale fatty color, while stellate vessels intersperse its surface.

The cortical substance has changed to a pale yellowish-white

color, and increased in volume, while the cones have assumed a natural pink color and size.

The tubules are blocked up with fatty granules, contained within the walls of the epithelial cells. The Malpighian bodies are often partially or wholly filled with oil-globules and fatty cells, but the capillary tuft is natural, and the bodies do not project so prominently as in the first stage.

In the stage of atrophy, the bulk and weight of the organ are both diminished. The capsule, though natural, as in the two preceding stages, is less easily torn off, and when removed, the surface of the gland is uneven, having numerous elevations and depressions. The color is mottled, and while the cortical substance is atrophied, the cones retain about their natural size, and the substance between the cones is greatly diminished.

The Malpighian bodies in the cortical substance are not prominent, but the arteries are thicker and more prominent.

Following the mythological traditions of ancient times, the theological dogmas of the present day, and the apparent harmonies of nature, we are bound to divide the waxy or amyloid form into three stages, as we have done in the inflammatory form; thus we have the simple degeneration of vessels, that in which a secondary alteration of tubules is suspended, and atrophy. In this form of the disease the urine is sensibly increased from the beginning.

In the first stage the organ presents an entirely natural appearance. The waxy degeneration begins in the capillary tufts of the Malpighian bodies, and in the transverse fibres of the middle coat of the small arteries, and in these fibres, as well as in the tufts, sago-like or boiled-starch-like translucencies are seen.

In the next stage the organ is increased in weight and bulk. The cortex looks much like white beeswax. The tubules are filled with matter, tolerably transparent, and consisting of hyaline tube-casts. The epithelium is swollen, and basement membrane frequently waxy.

The stage of atrophy or third stage: bulk and weight are much diminished, the surface is rough, granular, and of a pale waxy color. The cortical substance is atrophied, while the cones are

nearly natural. The Malpighian bodies are enlarged, the smaller arteries are dilated and their walls thickened. The tubules are mostly collapsed, and are represented only by fibrous tissues.

The Cirrhotic Form.—In this form the connective tissue of the organ becomes hypertrophied, while all the other structures of the organ become atrophied. In the commencement of this lesion the organ retains its natural size and appearance, but the capsule is thicker and more adherent than natural, and the surface is rough and granular.

Cortical substance is diminished more particularly near the surface. The arteries are prominent, their walls thickened, and their cavities often dilated. The structure is very much increased in density and fibrousness. Cysts frequently form on the surface and in the substance: they are produced sometimes by dilatation of the Malpighian capsules, sometimes by dilatation of the tubes, sometimes from morbid growths of epithelial elements. The tubes contain little of the opaque matter found in inflammatory cases, but are compressed and atrophied by the new fibrous tissue. They frequently contain some translucent hyaline matter. As the disease progresses these characteristics become more marked.

As the stages advance, both kidneys become reduced in size, but not always equally so. The cones are but little affected. Situated in the stroma of the organ, as well as in the tubules, are sometimes found needle-like crystals of urate of soda. This is particularly so in gouty cases.

Generally Bright's disease is not accompanied with pain; hence when pain of severe character in the region of the kidneys exists, it is fair evidence that the sufferer is not the victim of this disease, but rather of catarrhal inflammation of those organs or of some adjacent tissue.

The diagnosis of the several forms of Bright's disease in the living person is very obscure, and can only be positively discovered by post-mortem examination.

The cirrhotic kidney may be distinguished from the third stage of the inflammatory, or of the waxy disease, by the characteristic Iodine test, and also by the following points: In the cirrhotic, the capsule is more adherent than in the inflammatory or the waxy forms, the surface is very uneven, frequently studded with cysts,

and presents little or no sebaceous-looking substance. In the inflammatory and waxy forms the surface is comparatively smooth, there are seldom any cysts, and, in both these forms, especially in the inflammatory form, sebaceous-looking material is quite abundant. In the cirrhotic kidney the stroma is greatly increased, especially towards the surface, while in the inflammatory and waxy forms, the stroma, although increased relatively to the other tissues, is not absolutely above the normal amount.

It should not be forgotten that inflammation may secondarily affect both the cirrhotic and waxy forms of the disease. In the cirrhotic form we may have chalky deposits, not only in the urine but even in the tissues and joints of the body. This is characteristically different from the inflammatory form, in which we have complications of hypertrophy of the heart, chronic and acute affections of the lungs and bronchi, serous inflammations, indigestion, diseases of the brain, eye, liver, and spleen.

By the above-mentioned post-mortem signs we are able to determine the different forms and stages of this lesion of the kidneys called Bright's disease. There are some signs in the living subject, also, which indicate with unerring certainty its presence. They are the chemical and microscopical tests of the urinary secretion. The ordinary test, revealing albumen, supported by the revelation by the microscope of fibrinous casts accompanied by blood-cells and epithelium, and, in some forms and stages, by fat-globules and granules, give decisive evidence for diagnosis.

Excepting the above diagnostic signs there are scarcely any symptoms pathognomonic of this lesion. Nearly all, if not all, the conditions which will farther on in this paper be mentioned as arising from this affection, might arise in numerous forms of disease.

Since, then, it has no regular symptomatic pathology, nor pathognomonic indications, it ought to be treated of as only a symptom of a general disease of the system, just as we recognize an inflamed gland elsewhere in the system, or an ulcerated leg, or an anal fistula, as outgrowths of disease, and not as the disease itself.

There are no signs of a dysthesia by which we may be fore-

warned of its approach, as we have in phthisis pulmonalis; nor is there any prodrome, such as indicate the eruption in any of our epidemic diseases; so, not until the patient complains of great lassitude, and inability to perform the usual mental and physical labor, and this without any apparent cause, do we turn to an investigation of the character of the urine. Here we find certain important constituents of the blood are rapidly lost through the inability of the kidneys to perform their functions normally.

The most important of these constituents is albumen. Its loss leaves every other constituent of the blood in relative excess. The principal of these, because the most bulky, is the water of the blood, and then follows anæmia, with—according to the peculiar dyscrasia of the individual—symptoms of almost every known disease.

The encephalon may be affected by hydrocephalic, hydrencephaloid, or congestive invasions; the meninges of the brain and spinal cord may become inflamed; the brain and spinal cord themselves be softened; neuroses of nearly every form may supervene; the sight becomes impaired through disorganization of the retina, with amaurosis; epileptiform convulsions take place, and death in this way ensues. But the most common form of collateral symptoms is the disturbance of the heart's action and affections of the respiratory organs generally.

I think that, in two-thirds of the number of cases I have seen and treated, more or less violent catarrhal symptoms were present, accompanied by a cough, usually dry. At least a majority of the cases had hypertrophy of the left ventricle of the heart, while numerous cases had endocardial and pericardial inflammations.

Œdema of the glottis is not an unfrequent occurrence; nor, indeed, is a dropsy of any part of the organism, or of any of the tissues, to be unexpected.

If the individual dyscrasia is rheumatic, then that disease will develop in one or more of its hydra-headed features; if scrofulous, then shall this king of evils thrust forward his many poisoned tongues and fangs to torture his victim into the grave. Is insanity the skeleton of disease in the house? then shall all the green-eyed monsters of jealousy and enviousness invade the

sacred dome of thought and dash it to the earth. To give, then, the pathology of this disease, I must write an essay on all diseases, not because this lesion is present in all diseases, but because the symptomatic outgrowths of it invade the domain of all diseases.

I am not appointed to write the therapeutics, but I will suggest that Sulphur, Lycopodium, and Helonias, have served me better than any other medicines in the treatment of this disease.

LX.

THE TREATMENT OF BRIGHT'S DISEASE.

By Wm. H. Holcombe, M.D., New Orleans, La.

Bright's disease, or chronic nephritis, badly named, whether we call it after the physician who first diagnosed it, or after its principal anatomical lesion, is a great constitutional cachexia, the most inextricably complicated of all the maladies which assail the human frame. How is the homœopathic physician to apply his law of cure to this formidable combination of pathological elements, covering with a single remedy the totality of the symptoms? Think of the difficulties which surround him. He must find a remedy which will produce one of the various structural lesions of the kidneys indicated by congestion, exudation, desquamation, disintegration, interstitial deposit, retrograde metamorphosis, enlargement or contraction, and some one of the changes of tissue known as fatty, waxy, amyloid, lardaceous, granular, or cirrhotic. The urine must be loaded with albumen; its quantity alternately lessened and augmented; its specific gravity diminished; its urea notably decreased; and blood-globules, epithelial débris, fibrinous casts, fatty or pus-cells, and various other elements discoverable in it by the microscope.

Our provings, as yet, are very poor in observations of the chemical nature of the secretions and the structural changes produced by drugs. Hæmaturia and albuminuria, easily produced by artificial means, do not constitute Bright's disease. Albuminuria is common to many diseases, and the whole morbid picture above drawn may be sometimes seen in scarlet fever, yellow fever, and cholera. If the homœopathic physician should select

a remedy which accurately covers all the kidney symptoms, he might still be very far off from curing his case, for the kidney symptoms do not comprise anything like the totality of symptoms to which his drug ought to correspond.

The essential pathological element in Bright's disease is a depraved state of the blood. That fluid is thin and watery, containing much less albumen than in health, fewer red globules, and more white corpuscles, and is loaded with urea and other excrementary substances, rendering its circulation difficult, and nutrition almost impossible. It is ultimately charged with cholesterin and other impurities, until, as an able writer has observed, "the whole system is poisoned in detail by the retention of its own excrements." Associated with this morbid state of the vital fluid we find increasing anæmia, dropsy, slow fevers, emaciation, and progressive debility, each one of which is by itself a weighty element for analysis.

Nor have we yet exhausted the difficulties. The poisoned circulation and the depraved nutrition beget throughout the body a great many secondary or sympathetic phenomena, each one of which has a potent right to a voice in the selection of the remedy. The following are the principal of these phenomena: headache, neuralgia, vertigo, cramps, sometimes coma and convulsions; intense thirst, dry, harsh skin, intractable vomiting, diarrhœa or dysentery; unyielding bronchitis, œdema of the lungs; hypertrophy of the left ventricle; hepatic and splenic complications, and amaurosis. Each individual case has a few or many of these disturbances in various degrees of combination and complexity; and the homœopathic *similimum* to cure with scientific precision in the minimum dose must truly represent the kidney symptoms, the blood symptoms, and the secondary symptoms as they exist in the patient under treatment. Add to all this, that the case is frequently complicated with gout, rheumatism, pneumonia, alcoholism, scrofula, tuberculosis, syphilis, neuralgia, or malarial poisoning, pregnancy or chronic disease of the liver or other organs, and we can at last understand the obstacles which environ the homœopathic physician who undertakes to treat according to the Hahnemannian formula this intricate and formidable malady.

For these reasons we find that our homœopathic literature is exceedingly poor as regards the treatment and cure of Bright's disease. And when we reflect upon the complex nature of the disease, the difficulty of its thorough diagnosis, the necessity of the microscope, which we use so little, and above all the extraordinary spontaneous remissions which characterize it, so that even its dropsy, bronchitis, and amaurosis will come and go in the most unaccountable manner, and the disease run on sometimes for ten and twenty years with curious fluctuations and deceptive lulls, we are inclined to doubt almost every cure which has been reported. Transient albuminuria occurring in the course of some other cachexia has no doubt been often mistaken for Bright's disease, and cases have been reported as cured, when, if the history of the case had been carefully followed up for weeks or months after the decided amelioration or remission, it would be found to have returned with renewed severity.

The homœopathic physician, notwithstanding all this, has a hopeful though arduous duty to perform in the treatment of Bright's disease. It is certainly curable in the first stages, and life may be greatly prolonged and made more comfortable at all stages by the specific treatment.

It is all-important that this disease, so gradual in its course, and frequently so latent, should be detected early, before the circulation has been perverted, nutrition impaired, and those actions and reactions of one diseased organ upon another have been established, which make the malady so complicated and so intractable. Albuminuria, anæmia, and dropsy, formidable elements as they are, either singly or combined, are curable, but when the blood is poisoned, nutrition perverted, and secondary morbid processes set up simultaneously in different and distant organs, the prospect of cure is slight indeed.

The approach of Bright's disease is exceedingly insidious, and it is sometimes far advanced before the patient makes any complaint or the physician suspects it. The detection of albumen in the urine usually turns the scale of the diagnosis in favor of Bright's disease. The analysis of the urine should therefore never be neglected in such cases as the following: when a patient gets up frequently at night to make water, be it much

or little; when he is growing pale and sallow, with puffiness, about the eyelids; when he is constantly thirsty without any trace of fever; when he has sudden attacks of dyspnœa with or without disease of the heart; when he has an obstinate and stationary bronchitis; or an intractable headache or neuralgia; or unaccountable dimness of sight; when he has a persistent and puzzling vertigo; a peculiar dyspepsia, with vomiting of food of any and all kinds; or alternating diarrhœa and constipation, attended with burning sensations in the abdomen; or when he has curious attacks of cramp or paralysis, all limited and temporary in their character.

In these cases we have great hope of benefiting or even rescuing our patient, especially if we can also detect the etiology or the starting-point of the malady in alcoholism, or saturnism, or gout, or paludal poison, or pregnancy, or catarrhal nephritis, or prostato-urethral blennorrhagia, or heart or liver disease, or chlorosis, or any other pre-existing cachexia. We have no specific, no one *similimum* for all these states. Our prescriptions will vary with the totality presented by each case. We will sometimes have to attack the prominent symptoms in detail, one at a time. We will frequently have to alternate remedies. It is useful sometimes to give one remedy for the constitutional, and another for the local symptoms. We will find a special diet more curative perhaps than all our remedies; and we will be occasionally obliged, in justice to our patient, to fall back upon empirical measures.

Our practice of medicine is found in the Materia Medica, and I cannot better describe the treatment of Bright's disease, than to give the keynotes or characteristic symptoms which lead to the selection of those remedies which have been useful in practice.

Aconite.—This remedy is unquestionably useful in the simple acute nephritis, and in the renal suppression of Asiatic cholera; but it has no special range in Bright's disease, except for the intercurrent inflammations of organs and membranes so common in that affection.

Ailanthus promises to be useful in suppression of urine and

impending uræmia—with stupor or delirium, with dusky, red face—this last being the leading symptom.

Apis mel.—A very valuable remedy in its rather limited sphere. *Sudden* swelling at any point, eyelids generally first; anasarca, with shining white skin; ascites, with great soreness or sensitiveness of the abdominal walls; œdema of the brain; œdema of the lungs, the latter showing itself by great dyspnœa and suffocative constriction about the throat. The dose of Apis must vary with the state of the renal secretion. If the flow is excessive, the high dilutions are best; if it is very scanty or suppressed, the lowest succeed.

Apocynum.—This has been useful in strong doses to carry off the serous effusion by the bowels. It is not indicated if a diarrhœa already exists, or if the skin perspires freely, or if the urine is abundant. Like *Elaterium*, it frequently excites vomiting as well as purging.

Argentum nitricum.—Experiments upon the mammalia with this salt have produced hæmaturia, albuminuria, diminished urine of increased specific gravity, a great reduction of red corpuscles, transitory paralysis, a peculiar dyspnœa of nervous origin, coma, and convulsions, with fatty degeneration of the liver and kidneys. It is undoubtedly of great use in Bright's disease with gastro-intestinal irritation, violent headaches, confusion of thought, vertigo, and symptoms approaching epilepsy or locomotor ataxy.

Arsenicum.—Notwithstanding Baehr's depreciation of Arsenic in this disease, I think it is a first-class remedy, not so much for its local manifestations, as for the general state of the blood and the nervous system produced by it. *Phosphorus* alone can compare with it in the extent of its similarity to the manifold symptoms of Bright's disease. The most reliable indications for its use are the following: Incessant thirst; burning sensation in various parts of the body; extraordinary restlessness, especially at night; pale, waxy skin; cardiac troubles of various kinds, but mainly hypertrophy of the left ventricle; asthmatic attacks; anasarca; obstinate vomiting; periodical headaches; anæmia; and progressive emaciation and debility.

Arnica is a valuable intercurrent for hæmorrhages, for pleu-

risy, and for a low typhus or typhoid state with involuntary urination.

Aurum comes in for mercurial or syphilitic cachexiæ, palpitations, indurations, caries, swelling of the liver, bloated, shining face, with melancholy and despairing moods.

Belladonna seems to have no specific relation to Bright's disease, unless it may be called for in certain congestive states of the brain connected with uræmia.

Benzoic acid.—In the gouty or calculous diathesis, with pains in the kidney, vesical catarrh, and with very strongly smelling urine.

Berberis has many valuable kidney symptoms, which it would be well to study in connection with Bright's disease occurring in gouty or rheumatic patients.

Cannabis sativa, having muco-purulent discharge as its leading kidney symptom, is not often called for in Bright's disease, but seems well adapted to the pericarditis and the moist asthma which so often occur in the course of the malady.

Cantharis.—Strangury; hæmaturia; erotism; serous exudations; burning pains; paraplegia; dysentery, with shreddy scrapings from the intestines, and pleurisy, are the keynotes to this remedy. It belongs to the class of acute, violent, and inflammatory agents, but it is well adapted to some of the sudden exacerbations and complications of chronic desquamative nephritis.

Chelidonium.—As Cannabis suits the pericarditis, and Cantharis the pleurisy, so Chelidonium comes in as specially adapted to the pneumonia which complicates Bright's disease. It covers remarkably well some of the liver and kidney symptoms occurring in the chronic forms.

Coccus cacti.—Grauvogl reports a cure of severe desquamative nephritis, with terrible nightly aggravations, by the Cochineal in strong doses. Its kidney symptoms suggest its use in Bright's disease, and it will be found palliative in the sudden pulmonary congestions, with profuse mucous secretion and spasmodic suffocating cough.

Colchicum.—I have several times used this remedy with good success in diabetes occurring in patients of the gouty or rheu-

matic diathesis, and it is no doubt useful in Bright's disease also in similar constitutions. It seems especially adapted to those cases in which there is great gastro-intestinal irritation.

Copaiva may be called for not only when the bladder sympathizes with the kidney, and there is muco-purulent urine, but also in the bronchitic complications of this disease.

Creasote and its congener *Carbolic acid* have many kidney symptoms similar to those of Bright's disease, and are especially indicated in the obstinate vomiting, which is sometimes so difficult to arrest.

Cuprum is strongly allied to *Arsenic* in its action upon the intestinal canal, heart, and kidneys. It is more like *Phosphorus* in its action on the liver. It does not irritate the sensory sphere like Arsenic, but the motory sphere, so that it is called for in cramps, spasmodic twitchings, or convulsions. It is serviceable also in vomiting, dyspnœa, suffocating cough, and impending uræmia.

Digitalis, which I generally prefer in the form of *Digitalin* 3^x, is an admirable remedy in cases marked by irregular and irritable heart. I cannot deny that its allopathic use in strong doses as a diuretic is sometimes productive of marked alleviation.

Ferrum is a great favorite with the old school in this disease, mainly because the red globules are greatly reduced in relative proportion, and they hope to enrich or renovate the impoverished blood by its administration. Its stimulating action upon the heart and kidneys make it frequently homœopathic to the case.

Ferrum aceticum 2^x is an efficient remedy in copious and too frequent urination. The *phosphate* or *pyrophosphate* is best when the nervous system is greatly impaired, and the common *muriated tincture* is perhaps the best as a ferruginous tonic.

Mercurius corrosivus produces scanty, bloody, albuminous, and finally suppressed urine. Add to this the hydræmia and anæmia of the mercurial blood-poisoning, and its less disastrous secondary effects upon many organs and tissues, and we will see that this remedy may be indicated in many cases of Bright's disease. Characteristics are: Colics; tenesmus; bluish paleness of the face; yellowish tint of the body; puffiness of the face and feet; offen-

sive secretions; tendency to ulcerations or glandular swellings. For the latter symptom the *Iodide of mercury* is better.

Phosphorus.—This remedy has a pathological anatomy closely resembling that of Bright's disease. Kidneys present great structural changes, granular and fatty degenerations, destruction of epithelium, and finally atrophy. The urine is highly albuminous, and the blood profusely affected, the red corpuscles being greatly diminished and the white corpuscles correspondingly increased.

It covers the following symptoms: Nervous exhaustion; atrophy or softening of the brain; sensation of weakness and emptiness in the stomach; painless, watery diarrhœa; congestion of the right side of the heart, and hence nervous congestion of the kidneys; dimness of sight; amaurosis; hæmorrhages; hoarseness; pneumonia; jaundice; fatty degeneration and atrophy of the liver; and the concurrence of tuberculosis or of caries of the bones. So far as our researches have yet extended, *Phosphorus* and *Arsenic* promise to do more for Bright's disease than any other remedies.

Plumbum.—Workers in lead are frequently affected with Bright's disease, and its pathogenesis proves it to bear a specific relation to many of the phenomena of the disease under our consideration. Its keynotes are the following: Colicky pains (proceeding from the spine), with obstinate constipation and retracted abdomen; amaurosis from atrophy of the optic nerve (Phosphorus for retinal hæmorrhage); epileptiform conditions; paralysis; cutaneous anæsthesia, with albuminuria; exceedingly pale skin; chlorosis; rapid emaciation and progressive debility.

Sarsaparilla.—This popular "blood-purifier," so indiscriminately used and abused, is certainly a valuable remedy in syphilitic taints of the blood, in mercurial poisoning, in scrofulous affections, and in cachectic states dependent upon hepatic diseases and upon rheumatism. It has striking kidney symptoms of its own, and in Bright's disease, complicated with syphilis or skin diseases, it fills a sphere not so well occupied by any other known remedy.

Tartar emetic.—It might be expected that this agent, which is isomorphous with *Arsenic* and *Phosphorus*, and presents many

points of analogy with those remedies, would be serviceable in some stages of Bright's disease. It is in the form of pulmonary complication that I think it will be most useful—dyspnœa from mucous accumulation and impending paralysis of the pneumogastric nerve. I have found Tartar emetic more promptly palliative in humid asthma than any other remedy.

Terebinthina.—This is one of our most promising remedies for the kidney symptoms of Bright's disease. Pain in the back, very high-colored, even bloody urine, smooth and glossy tongue, diarrhœa, with prostration, hæmorrhagic tendencies, and the approach of a typhoid state, are sure indications for its use.

Nitrate of uranium.—This substance, which has been unquestionably of great service in both saccharine and insipid diabetes, has an important part to play in all kidney diseases when the leading symptom is,—compelled to rise often in the night to urinate, and consequent interruption of sleep, a symptom which sometimes occurs in the course of Bright's disease. This medicine diminishes the quantity and the irritative quality of the secretion.

The above list does not by any means exhaust the resources of homœopathy in the treatment of Bright's disease and its various complications. Many other remedies may be brought to bear in different cases, among which may be prominently mentioned, *Asparagus*, *Ammonium carbonicum*, *Calcarea carbonica* and *phosphorica*, *Helonin*, *Hepar sulphur*, *Kali citricum* and *hydriodicum*, *Lycopodium*, *Lithium carbonicum*, *Secale cornutum*, *Tabacum*, and *Sulphur*. By careful individualization of cases, by the selection of the best remedy, by suitable palliatives, by a steady treatment of constitutional ailments, by meeting the changing symptoms as they arise, and by suitable dietetic and hygienic measures, we may hope very greatly to diminish the mortality of this increasing and much-dreaded disease.

Not occupying the standpoint of the ultra or pure homœopathists who believe we had better let a patient die than to resort to anything not coincident with the homœopathic law, I am firmly convinced that our patients may be sometimes greatly relieved and their lives prolonged by certain empirical measures. In justice, however, to the noble efforts of the homœo-

pathic school to construct a truly scientific medicine, we should first faithfully and thoroughly exhaust the resources of that school before adopting a single empirical remedy.

As adjuvant to either homœopathic or empirical remedies, I can strongly recommend the occasional use of the hot-air bath, or the alcoholic vapor bath. The diaphoresis so induced occasionally diminishes the dropsical effusion which threatens even the most vital organs, such as the lungs and brain, with irreparable injury.

Dry or wet cupping over the loins is sometimes very useful in threatened uræmia, and about the temples for the amaurotic symptoms, which are very alarming and disagreeable.

For the terrible dyspnœa and pain, sometimes resembling angina pectoris, the inhalation of a little *Sulphuric ether*, or of a drop of the *Nitrite of amyl*, is efficacious. The latter substance, which produces abundant secretion of very saccharine urine, deserves study in reference to diabetes.

The headaches are sometimes temporarily controlled by the *Bromide of potassium*.

The dyspepsia is very much ameliorated by *Lactopepsin* and appreciable doses of *Strychnia*.

Croton oil, rubbed into the loins over the kidneys, has repeatedly caused the disappearance of albuminuria.

The suppression of the renal secretion must be promptly attacked in order to save the patient from coma and convulsions. Cupping over the loins, *Acetate of potash* in 30-grain doses, inhalation of the hot *Oil of juniper*, and the common watermelon-seed tea, are sometimes successful. *Digitalis* is sometimes given in doses of ten or fifteen drops every few hours on a mechanico-vital theory. It is said to increase the secretion in the cortical portion of the kidneys, to stimulate the heart, and at the same time contract the capillaries, thus greatly increasing the blood-pressure in the renal tissues, so as to force or wash out the débris of exudation which blocks up and obstructs the tubules of the kidney.

The dropsy of Bright's disease does not yield readily to purgatives, which, besides, tend to bring on the gastrointestinal irritation, in which the disease so often terminates. The hot-air bath,

producing profuse sweating, or, when that is inadmissible, from debility or other cause, puncturation of the limbs, are the best palliatives. To prevent erysipelas from the punctures, paint the surrounding skin with *Carbolic oil*, 1 part of carbolic acid to 40 parts of sweet oil.

The epileptiform convulsions of this disease may be sometimes cut short by Chloroform or Nitrite of amyl.

The waxy or amyloid, and the cirrhotic or contracting forms of this disease are incurable, and they are so frequently grafted upon profound dyscrasias, tuberculous, strumous, arthritic, syphilitic, paludal, or alcoholic, that it is impossible to give any specific rule for treatment. It must vary with the ever-varying symptoms. One thing is clear, that these patients are frequently benefited for the time by the administration of strong constitutional tonics, such as the *Hypophosphate of lime* and the *Citrate of iron and strychnia*. I have seen cases of both diabetes and Bright's disease improved for a while by these empirical remedies.

Lastly may be mentioned an empirical remedy, of whose *modus operandi* no rational explanation has yet been offered, viz., *skim-milk*, six or eight pints daily, to the exclusion of all other articles of diet, and continued pertinaciously for several weeks. The evidence adduced in relation to this remedy for the two great chronic kidney diseases is very contradictory, and therefore unsatisfactory, but enough has been accumulated in its favor to make a trial of it desirable in every case in which the patient can be induced to persist in its use. Only thus can facts enough be collected to lead us to any valuable conclusion. The fact that skim-milk alone has ever cured or even greatly benefited this exceedingly complex disease is, in some measure, confirmatory of the theory that its root or starting-point is in some morbid state of the digestive and assimilative functions.

SECTION IV.

REPORT

OF THE

BUREAU OF OBSTETRICS,

J. H. WOODBURY, M.D., ... Boston.
O. B. GAUSE, M.D., ... Philadelphia.
J. T. ALLEY, M.D., ... St. Paul, Minn.
S. P. BURDICK, M.D., ... New York.
MERCY B. JACKSON, M.D., ... Boston.
J. C. SANDERS, M.D., ... Cleveland, O.

TO THE

TWENTY-EIGHTH SESSION

OF THE

American Institute of Homœopathy.

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XLVI.

THE THIRD STAGE OF LABOR, ITS DUTIES AND MANAGEMENT.

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Immediately on the birth of the child the third stage of labor begins, and ends with the completed delivery of the placenta and membranes.

The professional management of this stage is divided into two classes of duties. 1st. Duties to the child. 2d. Duties to the mother. This paper will be limited to the consideration of the latter, viz., Duties to the mother.

While the safety of the child should engross our chief immediate attention, the mother should not cease to be the object of care—ministering to the child until living or dead it is handed over to the charge of an assistant subject to our counsel, the condition of the mother should never escape our attention, 1st, as to protection from chill, invariably requiring some additional covering, since the stage of muscular effort and struggle just closed has left the skin warm and perspiring. The added covering is chiefly required across the chest and shoulders, and may be supplied by drawing up from the foot of the bed a coverlet, quilt, or blanket, or substituting therefor some woollen shawl; 2d, as to her position, that she be made at ease, and as nearly flat on the bed as consistent with comfort. With a view to this end, all pillows or other bolstering material which have served more than to give the head and shoulder a comfortable elevation should be gently gradually displaced.

As soon as the immediate duties to the child have been discharged, and our attention can be undividedly given to the mother, our duties to her are

1st. To examine promptly, carefully, her abdomen, with the view to determine the condition of the uterus, 1st, as to whether there is contained another fœtus or not; 2d, if not, whether occupied by the placenta or not, and the degree of contraction attained.

The diagnostic evidences of the presence in the uterus of another fœtus should be held clearly in mind, to protect against the possibility of a mistake at so important a juncture. These evidences are (*a*) size of womb nearly as large as before the completion of second stage; (*b*) density and elasticity of the viscus so characteristic of gestation at full term; (*c*) normal pulse in fulness and frequency, natural color of face and lips, undisturbed stomach, integrity of the mental sphere; (*d*) vaginal touch, revealing either bag of waters or presenting part of the second child; (*e*) resumption of pains characteristic, in type and force, of the stage of labor just completed.

Only two possible conditions at all simulate this distension of the abdomen by a second fœtus in utero. One of these is the womb filled or filling with blood, the placenta still in utero or not, and which is always boldly marked by the most positive and general signs of concealed hæmorrhage, viz., sudden pallor, sighing, nausea, vanishing pulse or absolute pulselessness, coldness of hands, cheeks, and nose, impaired hearing, impaired vision, impaired consciousness, and the vagina or womb's mouth blocked up with the placenta or with clots. The other is an over-distended bladder, whose evidences are mainly negative, but whose infallible diagnosis, as well as prompt and inexpressible relief is, successful catheterization.

Assuming there is no evidence of another fœtus, this examination will determine whether the uterus is occupied by the placenta for the most part or not. Its occupation by the placenta, as a whole or chiefly, will be determined by the following conditions, viz.:

1st. The bulk of the uterus corresponding, as it will, to the size, as felt through the abdominal wall, of an adult head, the arc of the fundus reaching two-thirds of the distance from symphysis to the umbilicus, or even a little higher, varying with the

size of the placenta and the capacity of the inlet, and arching out laterally towards the iliac fossæ, furnishing an oval outline which the thumb and finger-tips can scarcely compress, having a variable degree of density, sometimes feeling firm, sometimes soft or spongy. It is well to be remembered, especially by the junior members of the profession, that in some cases in which the uterus has been greatly fatigued by the duration or severity of its struggles, it will lie in the abdomen, for some time after the birth of the child, flattened and flaccid, and its outline scarcely perceptible to the touch except on deep and almost rude pressure, in which cases after an indefinite time, varying from five to thirty minutes, the organ can be felt gathering itself up into a size, form, and density corresponding with the description just given. These latter are not common cases, yet do occur. If there has been no separation of placental connection, they are innocent of danger; if, on the other hand, there has been separation to any considerable extent, we may at once be confronted with one of the most formidable forms of concealed hæmorrhage.

2d. The finger carried by the guidance of the cord within and up the vaginal canal finds it free, for the most part, from the placental mass. These conditions, definitely determined as they ought always to be, indisputably establish the fact that the placenta is still in utero, detached or undetached. On the other hand, that the uterus does not contain the placenta as a whole or for the most part will be determined by the following conditions when present:

1st. Its diminished size, as felt through the abdominal wall, corresponding more nearly with the bulk of a normal fœtal head and with a variable degree of density, sometimes and generally feeling firm, but sometimes soft and quaggy, and limited to the hypogastric region, and hugging the symphysis closely.

2d. The finger, guided by the cord, finds the placenta either at the vulva, or, for the whole or greater part of itself, lying within the vagina.

These latter conditions present and definitely determined, as they ought always to be, equally indisputably establish the fact that the placenta is not only separated from but is expelled, as a whole or for the greater part of its bulk, from the uterus. The

line of professional duty must conform to these different conditions. Failure definitely and distinctively to grasp and comprehend them, must necessarily expose obstetric art to error and meddlesomeness.

Assuming an examination determines by these conditions present that the placenta is as a whole or for the most part without the uterus and within the vagina, our first and immediate duty is to complete its delivery, by lifting it out from the vagina, making its rim lead in the process by fastening the edge most available between the finger and the cord, made firm by traction with the other hand, aided or not at discretion by the voluntary forces. This little manipulation puts the placental mass in the best possible shape for extrication from the grasp of the vulva. No force is required beyond what is necessary to put the placental mass in a condition of elongation, as it is lifted from its imprisonment. Of the propriety and wisdom of the prompt and aided removal of the placenta in this condition, there can be no doubt. No good can possibly be subserved by permitting it to remain in the vagina; on the contrary an immense amount of mischief and danger is possible to its being left to delayed or spontaneous delivery. The placenta in the vagina is a discomforting, threatening, and dangerous presence, and no obstetrician who has a rational conception of the province of obstetric art, will consent to its remaining there longer than is necessary to put into execution the proper means of its complete delivery.

Assuming on the other hand an examination determines by the conditions present that the placenta is as a whole or for the most part in utero, our duties are more various, delicate, and responsible, and deserve the most careful consideration.

Our first rule of duty is to assume that if the natural forces were adequate to the delivery of the child after all obstacles had been overcome, whether of position, presentation, or obstruction, they may be counted adequate to the delivery of the placenta, unless some abnormality shall prove to exist, such as will be hereafter noted. These forces are almost exclusively uterine, and are tonic and clonic, each auxiliary to the other, sometimes, though rarely, the tonic to the exclusion of the clonic. Predominantly, however, both forces combine.

Our next rule of duty is, under certain restrictions, to work for and rely on the resumption and repetition of these forces, especially the clonic, and which are called pains, non-checked and delayed by the shock and depression incident to the completion of the stage just closed, for the full accomplishment also of the delivery of the placenta from the uterus. These restrictions are, 1st, hæmorrhage; 2d, convulsions; 3d, exhaustion of all therapeutic measures of relief aided by manipulation, and 4th, the expired time of justifiable delay in the given case.

Our next rule of duty is to watch the effect of these pains in their repetition both on the uterus and on the placenta, as may be determined by the hand through the abdominal parietes, and by the touch under guidance of the cord, and the result in the general condition of the mother.

The first examination even may reveal the fact that the placenta is detached, though still in utero, or after resumption of the pains, one or two, or three or four repetitions of them, though individually slight, may have accomplished this, still the uterus retains the placenta. In brief, the placenta may be detached or undetached, and it may be of the utmost importance to determine the fact in the case. Our next rule of duty, therefore, is to determine the fact of separation or not. The evidence of detachment should never be lost sight of. These are probable and positive. The probable evidences are, 1st. Resumption and repetition of pains, whose province is to separate as well as expel the placenta; 2d. Changes in the bulk and figure of the uterus as perceived by the hand through the abdominal front, these changes gradually gathering the organ up into a compacter, more oval or globose outline. The positive evidences are, 1st. No firm resistance to traction on the cord when this is made a little more than equal to the average weight of the placental mass; 2d. The touch, under the guidance of the cord, detecting the placenta in whole or in part lying upon or partly engaged within the os; 3d. Blood-loss, though not rapid or excessive, appearing as a clot in the vagina, or a steady trickling from the vagina, or a stratum of clot on the bedding beneath the vulva. This blood-loss may not necessarily exist, it is rather a contingent evidence

of separation, and without any necessary relation to the extent of the separation.

Having determined the fact of separation, our next duty is to consider the objects and results of farther delay. The first effect is to give the uterus a reasonable time in which to complete its delivery, reasonable in consideration of the severity of the labor process or its duration, the degree to which the womb has suffered from fatigue or shock, as well as the degree to which the general powers have suffered from either or both. The next object is to protect against after-pains. Some women are greatly subject to these, and suffer from them almost equally with the pangs of the first stage. As a class, it is they who have rapid and often-repeated labors. Of course there are exceptions to this proposition. My observation has led me to this conclusion, that the longer the uterus is permitted to retain the placenta the greater is the immunity from their occurrence, and the severity is less in case they assail.

A very common practice, I say it with no disrespect to any practitioner, for it is the vaunted rule of some men of good repute, is directly opposite to this, namely to hurry the placenta away whether in utero or not, whether detached or not, never or rarely giving to the uterus even fifteen or thirty minutes in which to complete its delivery, a practice which cannot be too strongly rebuked and condemned. It is as true, however, of the detached placenta in utero as it is of the placenta in vagina, that it is thenceforth a threatening and dangerous presence, and may result in flooding or convulsions. Therefore the next rule of duty in case of detached, yet retained placenta, is to give the womb a reasonable time, as determined by data before indicated, in which to expel it, and in case there is a habit of after-pains, all the delay that is consistent with safety and prudence, and when these objects have been subserved, to proceed to its delivery at once by obstetric arts, regimen, and therapeutics, according to circumstances.

There is one condition of detached yet retained placenta which deserves special notice as requiring a special interference of art in order to save unnecessary delay and protect from danger, viz., when the placenta is pressed centrally down over the os, with

the os margin closing closely round the cord, the placenta being retained simply from the mechanical disadvantage of its peculiar position, buttoned as it were within the os. Before the uterus can by its effort overcome this mechanical disadvantage, there may occur a great and needless waste of time and of uterine force. In such condition we have only to insert the finger within the os, and carrying its margin one side, back or forward, as the womb's position may most easily admit, making counterpressure to this movement by lifting the cord in an opposite direction, and reaching the edge of the placenta, bring it within the circle and grasp of the os, and from this point delivering it as when the edge of the placenta primarily comes within the circle of the os.

The position of the woman I regard of the first importance, whatever may have been her position at close of second stage. For this stage she should invariably be placed on her back, with knees lifted and supported by an assistant, and with shoulders and head in comfortable elevation. This position relaxes the abdominal front, favors the normal relation of the uterus with the axis of the brim, and gives the greatest liberty to the manipulations of art.

The position of the uterus in the abdomen is also important. The uterus will often be found dragging off to one side or the other, lying obliquely in the abdomen, the correction of which by setting the womb horizontally and centrally by gentle pressure or lifting through the abdominal wall, will prove greatly advantageous, and in some cases all that is sufficient to secure the prompt delivery of the placenta.

Another faulty position is where the uterus rides unnaturally high in the abdomen, seeming to fly back and upwards, and this too when not pushed up by wedging clots, as in case of hæmorrhage, and when equably and well contracted upon the placental mass. This will sometimes be found the case wherein the spinal curve at the promontory is sharp, and the promontory prominent, and the patient is lying with shoulders low and hips high, giving to the axis of the superior strait an angle of ninety degrees with the long axis of the uterus. This fault of position may and should be at once corrected by settling the hips or elevating the

shoulders, unless hæmorrhage is present and forbids this change, and by compressing the arch of the fundus and making gentle equable pressure downwards, and at the same time keeping the cord taut, the uterus may be settled down at the brim and put into normal relation with its axis. Maintained here for a little while it will not rise again, except in case hæmorrhage ensues and clots are permitted to accumulate and lift it upwards.

Let the condition we are considering be kept clearly in mind, viz., the placenta detached and still in utero, and the natural forces have been given a reasonable time in which to complete the labor. Next, after correcting, if there is occasion, these faults of position, whether on the part of the woman, or of the uterus, or both.

Frictions, so called, will prove eminently and promptly serviceable; not of the skin, but of the womb through the abdominal parietes, gentle and by rubbing, sweeping over as large a circumference as possible; not by a system of kneading or squeezing, or indenting by the knuckles, nor continuously, but intermittingly, corresponding with the clonic contractions of normal pains. In case these do not, within a reasonable time, arouse tonic and clonic force enough, cold water, quite cold, will often prove advantageous. It may be used either by keeping the hand which makes the friction wetted, and freshly wetted by it at every repeated friction, or by sprinkling it with a dash over the abdominal front, or by a sponge or folded napkin. Or very warm water will act favorably either as a substitute for cold or alternately with cold, the sharp contrast proving prompt to arouse the uterus to activity.

The placenta is sometimes injected through the cord, and sometimes the uterus through the vagina, by cold or by very warm water, for the same purpose. Neither of these expedients, that is these uses of the enema, have I ever resorted to, never having deemed them sufficiently superior to the use of water directly applied to the abdomen.

Co-operation of the will-force on the part of the mother, coincident with clonic contraction and our manipulations on the placenta direct or through the cord, should never be lost sight of, and always secured to the greatest possible degree.

Manipulation on the placenta through the os, to the extent of securing and keeping the edge or rim of the placenta in contact with the cord, and therefore always aiding in the act of its delivery, and the exertion of such a force on the placenta by the compression by the finger or fingers of the leading segment of the same against the cord now made tense, as the integrity of the placental mass will bear such force, always being exerted in the direction of the axis of the superior strait and Carus's curve.

Traction on the cord, coincident with the manipulatory force exerted on the placenta, and the mother's voluntary effort to the extent that this can be secured, and this force is always to be exerted coincident with the axis and curve just named, and the obstetrician's finger is always to serve as fulcrum to this force. The force which may be exerted on the cord varies greatly in different cases, according to the firmness of the cord's connection with the placenta. In general it is but a little more than equal to a force sufficient to sustain a corresponding weight, or, better defined, it is a force a little more than sufficient to put the placental mass in a state of greatest elongation, and therefore smallest cylindrical outline, consistent with its integrity of structure, and the integrity of its connection with the cord. The weakness or fragility of its connections with the cord, in some cases, is so marked as scarcely to bear a force more than sufficient to enable the cord to be put in a state of extension, with little or no force possible to be exerted through the cord.

Every practitioner having much to do in obstetricy will occasionally meet such a case. Our reliance in such case is chiefly by manipulation on the leading segment of the placenta, carefully bringing down more and more of the circumference until we have command of the whole.

Introduction of the hand within the vagina, and of the fingers or of so much of the hand within the womb as may be necessary to grasp commandingly the placental mass. This will enable us to complete the delivery at once. Adequate and sustaining counterpressure over the womb in all these cases of aided or artificial delivery is never to be neglected or omitted. Whether aiding the delivery of the placenta from the vagina, or from the womb, the membranes deserve especial care. Some advocate the

rolling of the placenta over and over, so as to entwine the membranes, or twist them into a kind of cord, the better to defend them against breaking as they are drawn from the mouth of the womb. This was formerly my practice, but from a careful observation I have abandoned this plan and adopted another, which I am satisfied is far better, namely, not to roll the placenta at all or twist the membranes, but with the finger find their free edge, and push them up together as compactly as may be, and then pass the finger behind, or in front, or on either side of them, according to their position in utero, and inch by inch lift them away from the arc of the circle of the os, over which they would otherwise drag, or would be drawn in case they delivered by traction, their own weight below the point of manipulation, that is below the os, being all the tractile force that is necessary or justified. I am satisfied that by this process masses of membranes, which by torsion and traction would be broken off and left undelivered, may be safely and surely plucked from the uterus. It is surprising what a stretch of membrane, so fragile as scarcely to sustain its own weight, may be gotten away in this manner. Since the adoption of this plan I hear no more complaints on the part of lying-in women or their nurses of membranous shreds hanging within and from the vagina, and extremely rarely of offensive lochia, and equally rarely have to do with metritic phlegmasia.

The therapeutics proper, in case of separated yet retained placenta, must, of course, rest entirely with the symptoms, which may be different in different cases.

There may be found pathogenetic indications for either Arnica, Aconite, Belladonna, Coffee, Camphor, or Pulsatilla. I never had to do with a case with a remedy indicated outside of this group.

Having determined by our first or repeated examinations that the placenta is undetached, the rule of duty is to wait until it is detached, even to the limitations of justifiable delay, using in the meantime, at discretion, in case the delay is extraordinary, all proper regimenal and therapeutic means to overcome the pathological conditions on which the extraordinary attachment and retention depends.

The pathological conditions on which extraordinary attachment and retention may depend are:

1. *Inertia.*—The uterus in such case remains quiet and passive, with possibly only tonic contraction enough to shut the walls down and around the placental mass, but to no greater extent than this, and without any clonic contractile force whatever. This passive inert state may continue beyond the limits of justifiable delay. Its causes are various, chief of which are: (*a*) exhaustion, or shock of the ganglionic force on the part of the uterus; (*b*) part of a general muscular exhaustion; (*c*) part of a general shock; (*d*) fatigue of the uterus; (*e*) part of a general fatigue; (*f*) intense mental emotion, especially of suspense or depression; (*g*) intense irritation, located elsewhere from the uterus, on some near or remote sentient centre, and thence reflected upon the uterus.

2. *Tonic Spasm or Irregular Contraction.*—This may affect one section or plane of the uterine fibres, leaving other sections in normal condition of tonic contraction, or even abnormally relaxed and flaccid. In one case the circular fibres of the os margin and cervix planes will gather up and firmly around the cord, shutting the placenta within the womb as completely as the same fibres shut the fœtus within in the beginning of the first stage of labor.

In another case the central section of the uterus, a little above midway of the long axis of the organ, will be smitten with this spasm, and the womb will be cast into the form of an hourglass, that is, divided into two cavities, the one above holding the placenta, and the one below, more like a sheath or tube leading to the point of constriction, which will be firm and quite unyielding. In another case the entire oblique and circular fibres, to the entire exclusion of the longitudinal, are the seat of the spasm, and thereby the womb is cast into the form of an old-fashioned sugar-loaf, or cone shape, grasping round and holding with great firmness the placental mass, as if seized by the two stretched hands, one on top of the other. And still in another case the oblique fibres of one corner or lateral angle of the uterus will seize, and hold with great force, the placenta, pocketing it as it were. Of all these varied forms of tonic spasm none is more

rare, or more difficult to detect, except in the act of manual delivery, than the "hourglass" form. In case the woman is very spare, and the abdomen flat, its detection might be possible. The other forms are always capable of detection on careful examination of the abdomen and by the touch. The causes are obscure, yet seem closely related to conditions of extraordinary irritation, whether affecting the uterus directly or reflexly; prominent among which are difficult labors, rendered so by too early breaking of the waters, or faulty decubitus, or rigid os margin, undue protraction of second stage, or meddlesome manipulations, use of drugs, especially ergot. The uterus seems endowed with something akin to a sentient faculty, since it is susceptive to injury and responsive to abuse, and is easily provoked into intense expressions of irregularity of function. These cases of tonic spasm seem in general the expression of desperate resent to conscious injury or abuse.

3. *Morbidly adherent Placenta.*—There is no reason to doubt the possibility of such a condition. It is well known that the placenta is subject to morbid changes, resulting from rupture of its more delicate vessels, from inflammation and even degeneration of tissues, and few men of extensive practice have failed to encounter one or more such cases. Yet it is a very rare occurrence as a real fact, although it has often been imputed to exist on the basis of a mere assumption or the suggestion of a woman's apprehension. Cases have occurred wherein the woman's expressed fear that her after-birth has grown to her side, was made the occasion and excuse of rude and hurried spoliation of the womb in violation of the clearest rules of obstetric duty.

The diagnostic evidences of extraordinary retention, dependent as it may be on either or more than one of these different conditions, are worthy of careful consideration. The atonic or inert state is not difficult to detect. Its characteristic is almost absolute passiveness of the uterus. When not lying flattened and flaccid in the abdomen, almost undistinguishable, as is sometimes the case, it may be felt simply outlining the bulk of the placenta, but without any firmness or tonic resistance to the touch, and the cord remains flaccid, and is never taut or felt to swash on itself. The uterus remains in this passive state through cycle

after cycle of the ordinary period of delay. It is a state requiring great caution as to traction on the cord, for when the uterine wall is thus flaccid, only a slight force would easily start an inversion or a hæmorrhage, which nothing but a prompt delivery would control.

The state of tonic spasm, or irregular contraction, as it is called, is, with the exception of the hourglass variety, comparatively easy of detection. A careful exploration of the abdomen, with or without the touch per vaginam, can always unmistakably trace and define the peculiar shape or form of any of the other varieties. The diagnosis will be greatly aided by the fact of the history and the status of the uterus as to suffering, this generally being a fixed theory; sense of constriction or tight banded feeling; by the condition of the cord, which is generally firmly grasped, and under cautious traction sways the uterus down, as if firmly agglutinated to the organ at its placental end.

The hourglass form can hardly be detected by either external palpation or inferentially, and only surely so by the touch in the act of manual delivery.

The weight of experience with the hourglass contraction is with Dr. Meigs, who affirms it is never dissociated with adhesion. The only case of hourglass contraction which ever came under my observation was associated with adhesion, very firm, covering an area of something over an inch square.

The morbidly adherent placenta is evidenced by the inutility of the uterine forces to separate it, however long or vigorous their activity, as well as the failure of therapeutic means, supplemented by all the available arts of obstetricy short of manual delivery, conjoined with the negative fact of there being absent the characteristic alleviations in figure or outline of retention by tonic spasm.

The last rule of duty we have been considering is, to wait for the placenta to become detached, even to the limitations of justifiable delay, using, in the meantime, in case the retention is extraordinary, all therapeutic and regimenal means indicated for the accomplishment of its detachment and delivery.

Now what do we understand by the phrase, limitations of justifiable delay? By it we mean there is a point of time from

which the case is involved in greater risk by any continued delay than by the interference of skilful obstetric art. This period is different in different cases, and is made by some practitioners unjustifiably extreme. Ordinarily one hour and a half gives time enough for the rally of the uterine and general forces fatigued or shocked by the duration and struggle of labor, and for the influence of therapeutic and regimenal measures to overcome existing or supervening pathological conditions which interrupt or delay the normal activities of the uterus; in other cases of more marked fatigue and shock, three full hours; and in the most desperate cases, six hours. This may be regarded as the extremest limit of justifiable delay, and for the following reasons: 1st. This gives the amplest time for the recuperation of the forces concerned in completing the delivery, and the amplest opportunity for both therapeutics and regimen. 2d. The uterus may by this time have so far progressed in the tonic contraction and condensation of the structures of the cervix and os margin, as to make farther delay incur the risk of encountering an insuperable obstacle alike to the ingress of the hand and the egress of the placenta. 3d. The tumidity and tenderness of the soft parts from the vulvar orifice up to the seat of the placenta on the womb wall increase so rapidly from about this date, as by its degree and exquisiteness almost to bar artificial delivery, should this be adjudged necessary, and surely to make it greatly more hazardous of contusion and inflammation. 4th. Any greater delay would degrade obstetric art from its high province as an active and vigilant helper in woman's hours of suffering and peril, as ready and skilful to anticipate, as to meet danger when at last it comes, to that of a mere supplemental reserve to be held available and called on only as a *dernier ressort.*

Our line of duty in the management of cases of undetached, yet retained placenta, will vary with the different pathological conditions on which the extraordinary retention depends. We will follow the order in which they have presented.

1*st. Management in case of Inertia.*—Here we have need of the most rigid regimen and recognition of the specific morbid condition. If the womb is suffering from exhaustion or shock *per se,* how important to secure its greatest possible quietude and

immunity from excitation by handling, touching, manipulation of any kind, whether by the cord, or the touch, or abdominal friction, or drug action. The rule is clear and imperative that the womb shall have perfect rest, even to the limits of justifiable delay. If the inertia depends on a state of general muscular exhaustion, or a state of general shock, the same rule holds, and more. Now the general powers are to be encouraged and nourished by a general quiet, and rest from every possible irritation, or excitation, or stimulation. No noise or confusion, or sense of care or anxiety, must be permitted to reach her, and her strength should be revived by bland and nourishing food in small quantities and to the stomach's grateful acceptance in frequency, the great types of which are milk and animal broth. In case the inertia depends on some mental state, we must address to it the best of our powers of relief and solace, get possession of her confidence by a manly yet tender sympathy, and make her cause our own. This will, almost unconsciously to her, help stay her spirit and break the spell of her emotional thraldom over the uterine forces. In case some intense irritation is preying on some sentient centre, remote from the uterus, to this our attention must be addressed, with the view of its speediest possible amelioration or control.

The therapeutic management of inertia is limited to a few remedies, chief of which are Arnica, Aconite, Arsenicum, Carbo veg., Camphor, Coffee, Ignatia, Opium, Pulsatilla, Veratrum alb.

When notwithstanding our best directed regimenal and therapeutic means, the limitations of justifiable delay have been reached, then we are justified in resorting to artificial delivery: 1st, by manipulatory and regimenal acts before mentioned, and 2d, as a dernier expedient, manual delivery as hereafter to be described.

Management in case of Tonic Spasm or Irregular Contraction, so called.—Here we have need also of the sharpest discernment as to the specific irritation, origin, and location of the same, which has wrought the uterus into this passion of morbid activity.

Equally as in inertia from exhaustion the womb needs rest from all provocation, or teasing, or girding. After the diag-

nosis is settled the abdomen should not be handled, or the vagina or os margin touched, except to note the progress of the case. Hot fomentations will prove a valuable adjuvant, gently applied and renewed to the abdomen, covering of course the area of the uterus. Enemas of hot water with their currents conducted against the os margin or into the uterine cavity will prove still more efficient.

Therapeutics has here a broader field, clearer indications, and more certain mastery. Arnica, Aurum, Belladonna, Chamomilla, Cocculus, Coffee, Cuprum, Gelseminum, Ignatia, Kali c., Platina, Pulsatilla, Secale. This group will in general cover the necessities of these cases. One dose or more of the right remedy and proper potency will in due time, in the great majority of cases, break the morbid spell and permit the normal forces to begin or resume their kind offices in the continuance and completion of labor. From the success in my own hands which has followed the local use of chloroform in the treatment of non-hæmorrhagic after-pains of extreme severity, I am constrained to suggest that the local use of chloroform may prove a potent valuable adjuvant in these cases. They are so analogous in character that the suggestion seems justified.

When by the use of these means the limitations of justifiable delay have been reached without any decided amelioration or relief, our duty is clear, and our alternative resort is artificial delivery, bringing to our aid or not, with a wise discretion, the ministry of anæsthesia.

Management in case of Morbidly Adherent Placenta.—Although the natural forces are presumably inadequate to detach a placenta morbidly adherent, yet it is clearly our duty to give these forces opportunity for their fullest and freest exercise, even to the limitations of justifiable delay, aided and supplemented by every regimenal and therapeutic means within our resources.

When this limit has been reached, manual delivery is our dernier expedient.

Mode of Manual Delivery.—At first thought nothing in the art of obstetricy seems more simple than to pluck the placenta from within the uterus. But it is an important operation and demands gentleness, care, and wise discrimination.

The woman on her back, near the edge of the bed, her hips slightly elevated, and knees sharply flexed and supported, and head and shoulders in comfortable position. An anæsthetic may now be used at discretion. The uterus through the abdominal wall should be gently yet firmly supported by one hand against any uplifting of the uterus by the other hand when entering or when within its cavity.

The hand warm and freely lubricated should always follow the line of Carus's curve through the pelvis, and when engaging the os or any point where tonic spasm resists ingress, make the pressure gentle and gradual, yet firm, and always in the direction of the long axis of the uterus, which will in general correspond with the axis of the superior strait, until the hand is in full possession of the cavity. The cord, if still intact, will always prove an invaluable guide to the exact location of the placenta. If the cord by any contingency has been disrupted, the sense of touch must determine its position, although it will presumably be found in one of its most common positions on the uterine wall. The finger-tips will at once engage the edge most readily accessible, and line by line, and inch by inch, lift it out and off from its concave bed on the wall of the womb, fracturing its substance the least possible, and ever respecting the anatomical fact that the site of the placenta is very appreciably elevated above the general plane of the inner wall of the womb and is more or less uneven, corresponding to the cotyledons and their intermeshes on the part of the placental surface, that while we make sure of securing all of the placenta which may be secured without rude force, we scrupulously avoid digging or plunging into the substance of the uterine parenchyma. After full separation has been effected, and the hand has full command of the placental mass, the hand with the placenta should be withdrawn as soon as possible, securing at the time of the first possible uterine contraction. The womb should be at once injected with Arnica water, hot or cold at discretion, and Arnica given the patient by internal administration.

When delivering by the hand in cases of mere inertia, as well as in cases of retention by tonic spasm, there may be so little resistance to separation after the hand has possession of the

uterine cavity, as that it may be effected by a simple grasping or clutching movement of the hand and fingers applied to the free surface of the placenta. This may be done so delicately as that the fingers shall hardly touch the inner face of the uterus. But however separated, when delivered there should be the most scrupulous care given to the membranes as before described, making sure their complete delivery.

XLVII.

REFLEX GASTRIC DERANGEMENTS DURING PREGNANCY.

By J. H. Woodbury, M.D., Boston, Mass.

The reproductive organs may justly be considered the central point in the female organism. They possess the most direct and intimate connection with both the ganglionic and cerebro-spinal systems of nerves; and no important change can take place in the uterus, either of position or of function, without producing an effect upon the organs with which it is in such close nervous relationship. One has but to carefully observe the phenomena presented by the various stages of an attack of hysteria—a disease whose seat is undeniably in the ovaries—to gain a vivid idea of the scope and variety of these reflex perturbations. These spasms, commencing in the hypogastrium, roll upward through the organism like the waves of the ocean, affecting first the diaphragm, then the stomach, then the heart, lungs, and bronchi, and, lastly, the larynx and pharynx, culminating in that grand climax of the hysteric passion, the *globus hystericus*. Or the cerebral system may be simultaneously affected, and spasms or convulsions of every degree, from the slightest nervous tremor to the most violent and protracted muscular convulsions, may be the result.

Following these we often meet with every variety of functional disturbance. In the pharynx, dysphagia; in the larynx, croup, which apparently lacks none of the essential elements of the true disease, except the production of the characteristic membrane; in the bronchi, cough and asthmatic respiration; in the stomach,

nausea and vomiting; in the diaphragm, hiccough; in the bladder, dysuria; while the number and variety of nervous derangements is past enumeration.

Somewhat similar are the disorders produced by pregnancy; for, although gestation is a strictly physiological process or function, still so great a change as it produces, not only in the uterus itself, but also in the whole organism, rarely takes place without exciting functional disturbance, if not more decided morbific processes, in very distant and dissimilar organs, by virtue of their intimate nervous connection. Nor, indeed, are the physical symptoms the only ones produced, for we not unfrequently see the whole mental and moral constitution for the time being completely changed, and those who are naturally amiable and gentle become irritable, peevish, and fretful; while those naturally ill-tempered become kind, patient, and agreeable. Of all these derangements, the gastric are the ones capable of producing the most suffering, and for the relief of which the aid of the physician is most frequently sought; and of these, nausea and vomiting are the most frequent, persistent, and uncomfortable. The absence of "morning sickness," as it is termed, during the first three months of pregnancy, is the exception rather than the rule. In many cases the discomfort is but trivial and soon passes away; but in others the vomiting is so severe as to require the most prompt and careful treatment to prevent the occurrence of, and sometimes to avert, serious danger to the patient's life.

The diversity of views held by different writers concerning this affection constitutes an interesting chapter in obstetrical literature. Some have taught that its existence, even in a moderate degree, was fraught with great peril to the patient, and that the danger of abortion was imminent while it lasted. Others have considered it a positive advantage to the woman, and even advised the production of an artificial substitute when it did not exist, by the administration of small doses of Tartar emetic, even up to the point of producing emesis, believing that thereby dilatation of the uterus would be rendered more easy and certain. Many modern obstetricians also have insisted that labor was easier in cases where morning sickness had existed during the early months of pregnancy than when it was absent, claiming that its effect on

the os and cervix uteri in producing relaxation was similar to that of the same symptoms occurring during labor. These speculations, however, are foreign to the purpose of this paper, and I pass to the consideration of the treatment of morning sickness, when it is so severe as to require it, observing, by the way, that I do not think that there are sufficient advantages to be derived from the existence of this peculiarly uncomfortable affection to justify its toleration in severe cases.

The successful treatment of the gastric derangements of pregnancy depends as much upon the proper observance of hygienic and dietetic rules as upon the administration of medicine; indeed, medical treatment is often rendered unnecessary by a strict attention on the part of the patient to the quality of her food, and the manner and time of taking it. I have found, in many cases of very severe morning sickness, where there was an utter loathing of food, and the almost instantaneous rejection of it when taken, that if the patient was kept perfectly quiet for a few days, moving no more than was absolutely necessary, the irritability of the stomach was greatly diminished, and consequently the frequency and severity of the nausea and vomiting. Many patients are greatly relieved by taking a little hot coffee, without sugar, before rising. The local application of cold, steadily persevered in for several days, is also of great service. One patient, who had been given up by her allopathic physician as hopeless unless relieved by abortion, was entirely cured, and enabled to retain her food without difficulty, by the persistent use of a rubber bag filled with ice, applied over the stomach for half an hour before taking food, and continuing it for an hour afterward. By this means she was enabled to take milk, beef tea, oyster broth, etc., and retain them until digested.

Among internal remedies, Nux vom. has been in my hands more generally useful than any other. I usually give it in the lower attenuations, and with decided relief in a large majority of the cases. In patients of a highly nervous, sensitive organization, Kreasote is a remedy of great value. Tabacum promptly relieved one of the worst cases that I ever saw. The nausea was intense, and there was great prostration and præcordial distress. Lactic acid has proved of great service in some very obstinate

and distressing cases, where there was almost constant nausea, as contrasted with the "morning sickness," which passes away as the day advances. I have seen very prompt and satisfactory results from the use of drop doses of the concentrated acid in a tablespoonful of water every two hours. One patient miscarried twice as the result of severe vomiting, but under the use of the Lactic acid, as above, has gone safely through three pregnancies, and given birth each time to a living child, the nausea and vomiting being speedily mitigated by the use of the acid. In the nausea of the last stage of pregnancy I have seen more relief from the use of Pepsin than from any other means. Here the vomiting seems to be the result of long-continued irritation of the stomach, resulting in a decided dyspepsia, and digestion becomes impossible, simply from the lack of the elements necessary to its performance. I give it in three-grain doses, shortly after each meal, and I greatly prefer the American article, as prepared by Procter or Scheffer, to any others. This treatment may be objected to as not homœopathic, neither is it allopathic. It is simply supplying an element necessary to the proper digestion of food. Thus used it becomes a remedy of great value to many women at a most critical period of pregnancy, for, if the vomiting be not promptly arrested, the patient may sink from exhaustion, or premature labor be induced by the frequent and violent retching. Many other remedies are often indicated, and their use imperatively demanded in the treatment of this disorder, but I have contented myself with naming here only those which I have found most frequently indicated and successful. The other gastric symptoms—the salivation, the perversions of taste, the pyrosis, and constipation, etc.—although occasionally sources of great discomfort, are comparatively rare, and lack of time compels me to omit their consideration in this paper.

XLVIII.

MENTAL INFLUENCES ON MATERNITY.

By O. B. Gause, M.D., Philadelphia.

Mrs. G., pregnant with her first or second child, went into the kitchen in the dark, supposing herself alone; she groped her way with outstretched arms and hands, seeking for an object; unexpectedly her hand came in contact with the head of a negro, who was asleep with his head resting on the table.

She was greatly startled by the shock. Her child was born physically perfect, but his hair had the peculiar feel and the short crisp curl of the negro.

Mrs. H., while pregnant with her first child, stepped upon a hot poker and burned her foot. She gave birth at term to a boy physically perfect, with a mark on his foot corresponding in location and general appearance to the burn upon her foot.

Mrs. H., while pregnant with her first child, became very much excited at witnessing a quarrel between two gentlemen in the car in which she sat. One knocked the other down and brought blood upon his face, which she saw and became alarmed. Her child was born with a large bright-red mark at the base of the neck.

Mrs. M., while pregnant with her first child answered the door-bell; when she opened the door a deformed cripple suddenly presented herself to her sight, and she was very much startled. Her child was born at "term" very much deformed in body.

I might go on to enumerate illustrations; doubtless every physician has personal knowledge of cases, and our literature abounds in them, in which *maternal impressions* exert an influence

which is manifested by physical signs upon the fœtus in utero, and remain at birth and through life.

These *physical* results of impressions are phenomena peculiar to gestation, and therefore possess an interest in this connection. The query arises as to whether these results are mere coincidents and therefore accidental, or are they to be accounted for by a study of the physiological laws governing reproduction?

Preliminary to any attempt at an explanation of these phenomena, is an understanding of the anatomical relation of mother and fœtus in utero, and the medium of communication between the two. Is the fœtus in any true anatomical sense a part of the mother? On the one hand it is contended that as soon as the fecundated ovule escapes from the ovary and is conveyed to the uterus, it ceases to be an anatomical part of the female, that it then and there takes on an individuality, and becomes no longer an integral part of the woman, but assumes a peculiar relationship, which is not anatomical but nutritive, this relationship extending over a period of nine months, after which it is expelled from the womb and a new nutritive relation established in which the individuality is more manifest but not more essential, and that during the period of intra-uterine life there is no direct channel of communication between the mother and fœtus, either vascular or nervous.

There being no permanent organ of communication in utero, provision is made for the erection or creation of an organ for this sole purpose. This organ is the joint product of the uterus and ovum, and is denominated the placenta. The fœtus being anatomically related to a portion of this organ and the uterus being anatomically related to another portion, and these two portions being developed *pari passu* in juxtaposition, combine to constitute an organic whole, bearing a joint relationship to the uterus and fœtus, and constitutes the medium of temporary union between two dependent individualities, the one furnishing nourishment, the other being nourished.

It is claimed that the projection of the curling arteries of the uterus into the maternal placenta are not accompanied by any nerves, neither are there any nerves in the umbilical cord; hence there is no nervous communication between mother and fœtus.

It is also claimed that the union between the two portions of the placenta is one of intimate coaptation, there being in fact a maternal membrane of extreme tenacity, so delicate as to defy demonstration throughout, separating every part of the maternal placenta from the fœtal placenta, and therefore it is through this membrane that the minute radicals of the fœtal vessels receive nutritive blood and deliver up the venous blood of the fœtus by endosmosis and exosmosis, there being for this purpose a "pool of maternal arterial blood," and the function of exchange is like that of the respiratory branchia of the fish.

If we accept this as the whole of intra-uterine nutrition, it will be difficult to account for the "marks" and other peculiarities which are localized upon the child.

In addition to such localized effects which are typified by the cases cited at the head of this paper, there are other and more general effects which have been traced to maternal impressions, such as arrest of development in particular organs, cleft palate, hare-lip, spinal and cerebral herniæ, etc., and also what have been termed spontaneous amputations and fractures of limbs, idiocy, and death.

Upon the above theory of fœtal nutrition it would be easy to account for the death of the fœtus in utero, or the arrest of development in whole or in part, through the change effected in the maternal blood by fright or other very powerful impression, such as grief or anger.

A mental shock which will destroy the appetite and derange the function of the liver, may extend its influence to the entire nutritive system, and so act as to generate poison in the blood. This may impair very seriously the health of the individual. If it be a nursing mother, the influence will be manifest also upon her child, by a partial or general and very serious disturbance of its health, even to the sudden destruction of its life after or during nursing.

If, therefore, a poison so subtle and powerful can be generated as to change the mother's milk into a deadly poison, that poison is most likely developed in the mother's blood, and thence reaches the milk through the lactiferous glands. We may readily infer

that the fœtus in utero would be more easily affected by such influences, since the maternal and fœtal connection is more intimate than that of the mother and nursing child.

From the period of conception to the close of lactation the physical relation of mother and child is such as to bring the child within the range of certain influences made on the mind of the mother. During this entire period the mental condition of the pregnant or nursing woman becomes one of peculiar interest. He who would attain the best success in the treatment of infantile disorders must not lose sight of the mental state of the mother. We find congenital abnormalities whose causation is to be sought in the mental condition of the mother at some period of gestation. But it is worthy of note that the mental condition which conveys a disturbance to the fœtus or nursing child is not the prevailing one, but is incidental, brief but intense, like the electric storm, charged with lightning, thunder and floods of water, carrying devastation in its track. The fact that impressions made upon the mind of the mother may be conveyed to the child within her womb, is recognized by the laity as well as the profession, but there has not been a satisfactory explanation of how this is effected.

This is different from hereditary influence. Prevailing states of mind which are peculiar to the gestative period are often transmitted, and become a permanent characteristic of the new being, for instance likes and dislikes of particular articles of diet.

In order to a comprehension of these phenomena, we must study more fully the anatomy and function of the wonderful temporary organ of intercommunication in utero between the mother and fœtus, the placenta. In doing so we shall find that it is far more complex, that it is not merely depurative or respiratory, but glandular and elaborative. If this be so, we cannot avoid the conclusion that in it and through it there is a union of the ganglionic systems of the mother and fœtus, and if so, since the cerebro-spinal system of the mother is connected throughout with the ganglions of her sympathetic, therefore impressions made upon her cerebro-spinal system may be made through it *via* the ganglionic system upon the fœtus.

From Tyler Smith's minute and elaborate description of the

human placenta, we make the following abstract: "Each villus of the placenta is composed of a bloodvessel, a layer of cells, and a fine membrane, derived from the chorion; of a second layer of cells, and a second membrane, derived from the decidua, with a small cavity between the two; the whole of these structures being inclosed in the blood-membrane of the mother. . . . The capillaries of the fœtus become, in effect, in the placenta, a portion of the capillary system of the mother. . . . . The pulmonic or bronchial function is not the only one performed by the placenta in fœtal nutrition and excretion.

"The layers of cells derived from the decidua and chorion, and the vessels of the villi, are also analogous in function with the cells and lacteals of the villi of the intestinal tube. As these cells arrive at maturity they burst, and their contents, which are of a milky appearance, are passed into the space between the two layers of cells, new generations of cells being formed to succeed them, from the germinal spot found in the villi. . . . The chymous fluid, thus elaborated by the first layer of cells, and passed into the space between the two layers of cells, is next assimilated to a further and higher degree by the internal and fœtal, or choronic, layer of cells, as in the former case, by the growth and rupture of the cells, and the chylous material produced is absorbed and carried into the fœtal circulation by the vessels of the villi. The placenta may be said, therefore, to perform in the fœtus the functions of the lungs and the intestinal canal."

But before this blood, thus acted upon in the placenta, reaches the heart of the fœtus, it is noteworthy that the chief quantity of it is passed through the liver of the fœtus to be further elaborated and fitted for fœtal nutrition. In order to the performance of these elaborative functions there must be a nerve-force supplied from the ganglionic system of both mother and fœtus. As each ganglion is a nerve-centre, a generator of force, which is to be expended chiefly upon some specific organ, we perceive that any disturbance of a nerve-centre will be manifest in the organ over which that ganglion presides. The cerebro-spinal system exerts itself upon the voluntary movements of the body, and as a general correlating force upon the animal economy.

It will be seen, then, that there is a sense in which the gangli-

onic system may be called the seat of life; therefore, if the fœtus is not an anatomical part of the mother, but possesses an individuality which essentially differs from an organic part of her body, that individuality must reside in its ganglionic system.

Inasmuch as this individuality consists in part of the vessels of the funis and choronic placenta, the conclusion is unavoidable that the influence of the ganglionic system must extend to these organs, and therefore, in order to this, nerves from this system must be distributed to the vessels of the funis and placenta. On the other hand, the maintenance of the function of the decidual placenta must be preserved by the ganglionic system of the mother, nerves from which are distributed to it from the curling arteries of the uterus. Here we find the union of the two nervous systems. This union is not merely one of contact, it is one of harmony and sympathy; there is a correspondence throughout, by which corresponding nerve-centres or ganglions of the mother exert a special influence upon similar nerve-centres or ganglions of the fœtus in utero. It is thus we find an adequate channel for the transmission of maternal impressions to the fœtus in utero.

Each ganglion of the sympathetic system acts as a distinct brain, and exerts its chief power or influence within a circumscribed portion of the body, or upon certain organs; hence a disturbance acting upon a ganglion will be manifested in that particular organ or organs over which such ganglion presides. If, therefore, a powerful disturbing impression be made upon a certain ganglion of the mother, the disturbance may be transmitted to the fœtus through the corresponding ganglion of the fœtus; hence we account for the specific location and character of what are termed "mother-marks" upon the child.

The woman who put her hand unexpectedly upon the head of the negro, received a shock and fright through the sense of touch; the result on her offspring was, its hair had the characteristic feel and curl of the negro. The effect upon the fœtus did not extend beyond that made upon the mother's mind.

The woman who saw the blood running down the man's face, received a fright through the sense of sight, conveyed an impression to her child in utero, which was manifest by the color of blood on a circumscribed spot very nearly corresponding in loca-

tion to that upon which she saw the blood upon the wounded man.

A pregnant woman suddenly sees the stump of an amputated arm, and gives birth at term to a child deficient in one arm, but otherwise physically perfect.

Or instead of the shock coming from something specific and local—if it come in form of a general alarm which disturbs the whole economy of her being—the effect upon the fœtus may be as general, producing either idiocy or death.

Peculiar prevailing states of mind during the gestative period are often transmitted as hereditary idiosyncrasies, such as peculiar appetencies and antipathies. The results of these impressions or states of mind differ from the physical ones under consideration.

I know a person who never eats beefsteak, but is fond of roast beef. His mother accounts for his peculiarity from the fact that, while she was pregnant, she had an utter abhorrence to beefsteak, could not tolerate the sight of it, while she could eat roast beef.

As a rule, however, the hereditary transmissions are the permanent parental characteristics, and are found doubtless in the male and female germ, since the maternal do not essentially predominate over the paternal.

Maternal mental influence upon offspring exerts itself, then, chiefly through the ganglionic system, both during gestation and nursing, and when manifest acts as a disturber of the harmonious function of the sympathetic system over the life functions of the involuntary organs of the body.

XLIX.

ON MALPRESENTATIONS OF THE FŒTUS IN UTERO.

By Mercy B. Jackson, M.D., Boston.

In this paper I do not propose giving a description of different malpositions that may be found clearly defined by authors, nor the usual methods by which they may be rectified, but simply to state some facts within my own knowledge which may possibly be of use to obstetricians in rectifying malpositions by simpler means than have heretofore been used.

Some thirteen years ago, my attention was directed to this subject by having a delicate woman in my care, who had had convulsions in two previous parturitions and remained insensible for more than twenty-four hours in each case.

Finding a breech presentation, and considering her previous history and predisposition to convulsions, I had little doubt that they would be developed if the child was born in that position, or if manual interference was resorted to in turning. On this account my mind was greatly exercised to find some method by which the dreaded evil might be averted.

Previous experience had taught me that uterine misplacements of various forms could be removed by internal treatment alone, and I saw no reason why malpositions might not also be corrected by it.

After much thought, and consulting many books, in the hope of finding some clue that might lead me to the right medicine, a remark of Croserio's "that Bethman had in one instance given Puls. before the membranes were ruptured for some suffering of

a woman in whom he had found a shoulder presentation, and in a few minutes after she had experienced a violent pain, with a sensation of overturning in the abdomen, and on second examination was agreeably surprised to find the head presenting."

This led me to think that Puls. might be the remedy, and I determined to make the trial, believing that no harm could arise from its use, and if successful great good would accrue.

Being called to the lady on the 20th, found the pains quite severe, the position unchanged, the os uteri closed, and the point of the nates plainly felt. Puls. was administered, a few pellets of the 30th potency in half a tumblerful of water, one teaspoonful every three hours, with the following results:

The pains soon ceased. In three days after taking Puls. she felt a great commotion in the abdomen, with necessity to go to stool, and in a short time felt better than for two months previous.

On the 24th, at 11 A.M., was again summoned, found her far advanced in travail, with the head presenting, and in thirty minutes a fine boy was born by the vertex.

The success of this case led me to use Puls. in all the cases of malposition that came to me, and since that time, now thirteen years, I have had fourteen cases of malposition of different kinds, in all of which I have used Puls. with success in changing the position, and in all but one to a vertex. In that case the position was changed from a trunk to a foot, the remedy having been suspended before the process was complete.

In one of these cases I had the satisfaction of observing the effect of Puls. Being called to the lady, some five miles away, found her in travail at half past 2 P.M. The waters were intact, the fœtus lying across the abdomen, the back up, the knee only in reach. Gave Puls., 30, a few pellets in water, one teaspoonful every hour.

Made several examinations, and at 6 P.M., found the head had come down so that with great exertion could touch it, and the knee had risen beyond reach. The pelvis on the right side was felt to be empty.

At midnight, on examination, found the head fully down, and at 2½ A.M., a girl was born by the vertex after only two and a half hours of much pain.

I have heretofore published, at three different times, eleven cases of evolution following the use of Puls. The first were in the fourth volume of the *American Homœopathic Review*, p. 505; the second in the *Hahnemannian Monthly*, vol. 3, p. 321, and the third in the *Hahnemannian Monthly*, vol. 4, p. 279, to which I refer those who desire to know more on the subject.

Since these were published I have had three more cases in which the same result followed its use. Could all these cases be the work of nature unaided by Puls.? If so, why do we ever have to resort to manual interference, and why does not nature interpose in aid of physicians who do not use Puls.?

That nature does sometimes produce the desired evolution in the process of travail, there is no doubt, but that it would in fourteen successive cases in one person's practice I cannot believe, and, moreover, some of the cases were given Puls. as early as seven months, others at eight, and others at eight and a half, and in all the result followed within a week from the commencement of taking Puls. In all that were examined during the week, a change was found at each examination, showing that the fœtus was coming into the vertex position.

The longer before term the medicine was given the slower the process, as might be expected, on account of the greater activity of the uterus as the end of the term approached.

I have received several letters from different physicians, stating cases in which they believed that Puls. had produced evolution from an unfavorable to a favorable position. Another physician, of very large practice, told me that he had given Puls. to all his cases a week before term since I first told him of my cases, and that he had not had in all the years a malpresentation in a case where he had given Puls.

With so much evidence of the power of Puls. to produce evolution before the waters are ruptured, there should be no delay in bringing it to the test of experience by the whole profession, as it is the only method by which it can be settled beyond a doubt, as this power can only be shown in the gravid state.

To those of my own sex who have been unfortunate enough to have a child born by any unfavorable presentation, I need not say how much suffering may be avoided by the use of Puls. Nor

to the other sex, how much security to life is increased and the long watching and labor at the bedside diminished by this simple method.

It being the duty of every physician to lessen suffering and save life, it is clearly a part of that duty to make himself acquainted with the best methods by which these desirable ends can be accomplished.

Nor should the simplicity of the method be urged against its efficacy, since on that account it can be tested without suffering to the patient, and, if successful, greatly to her relief.

I would respectfully present this paper to the Institute with the earnest request that it be candidly considered and faithfully tried by its members, most of whom I believe to be desirous of relieving suffering by those methods that do no injury to the patient, and all of whom are, I trust, willing to learn, even from the humblest sources, any truth that may lessen the fearful sufferings by which most of the race are ushered into life.

There can be no reasonable objection urged against its trial, as it involves no risk of injury to the patient, and leaves the physician all the resources he had before if this fails.

SECTION V.

REPORT

OF THE

BUREAU OF SURGERY,

L. H. WILLARD, M.D.,	Alleghany, Pa.
WM. TOD HELMUTH, M.D.,	New York.
MALCOLM MACFARLAN, M.D.,	Philadelphia.
E. C. FRANKLIN, M.D.,	St. Louis, Mo.
H. M. JERNEGAN, M.D.,	Boston.
H. F. BIGGAR, M.D.,	Cleveland, O.
J. H. McCLELLAND, M.D.,	Pittsburg, Pa.
GEORGE A. HALL, M.D.,	Chicago.
J. R. FLOWERS, M.D.,	Columbus, O.

TO THE

TWENTY-EIGHTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME II. NUMBER 11.

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X.

CONCUSSION AND COMPRESSION.

By E. C. Franklin, M.D., St. Louis, Mo.

"Nullus capitis vulnus contemnendum" was an aphorism of Hippocrates, justly styled the "Father of Medicine," which, translated by the great Liston, is thus rendered: "No injury of the head is too slight to be despised, or too grave to be despaired of."

This observation applies with equal force to the *spine* as well as to the head; for if the brain is predisposed to secondary diseases that often challenge the closest scrutiny and investigation of the medical man to determine its precise status and location, it is equally true that those derangements that follow in the wake of spinal injuries are none the less interesting or less frequent.

In the present essay, therefore, I shall endeavor to present a clear and comprehensive history of all the derangements that follow in the track of *concussion*, not only from injuries done the brain, but also those of the spine; from shocks to the body generally, rather than from blows either upon the head or back; and to trace the train of progressive symptoms and derangements that follow such injuries. I will then allude to the subject of compression as it affects both the brain and spinal column as the result of injury done those organs.

What is concussion? This derangement of nerve-tissue has been variously defined by different writers, the most common belief among the older surgeons being that it was a "commotion of the nervous fibres, inducing a change, vague and indefinable, in the relations they sustain to each other and to their tissues."

From the earliest period of medicine to within the last quarter of a century, very little has been effected towards a proper and scientific elucidation of the true mechanism of this disorder, and consequently the troubles that have followed these occurrences have been as little understood as the cause of the troubles themselves. The theory held by the earlier writers that concussion was due to an increase or decrease of the brain-substance, is certainly a very incorrect conception of the nature of this lesion. The brain accurately filling the cranial cavity, could by no possible means undergo any change of bulk from a mere commotion of its substance. In fact, until within the past few years through the investigations and researches of Bright, Blandin, and Fano, little was known of the true pathological conditions of the brain and spinal cord induced by injury, and therefore little could be effected in the way of scientific treatment. The outward manifestations or symptoms of the conditions were so varied and apparently so conflicting, that the general practitioner was often at a loss to determine the exact nature of the lesion or the extent of the morbid derangement.

The phenomena that are generally present following a case of shock, are either a serious impairment or else a total suspension of sense and motion. In the one case the patient is cold and senseless, the intellect is dethroned, the pulse is feeble, slow, and hardly perceptible at the wrist, and the respiration is slow and heavy, even stertorous and interrupted in some cases. The patient exhibits no cognizance of external objects; there is either no manifestation of sensibility, or the feeling is found to be very obtuse. The *reflex* nervous actions *may* occur, the urine may be evacuated involuntarily, and the pupil of the eye be dilated.

These are the phenomena that are witnessed during the first stage of concussion, which varies in duration according to the conditions and circumstances of the case. The second or reactionary stage, is characterized by the evidences of arterial excitement. The pulse gradually expands, the skin becomes warm, the intellect returns, the eyes open, and the patient will attempt to speak if sharply interrogated. Sensation returning, the pupil contracts, and vomiting takes place by reflex action, giving evidence that the vital powers have begun to rally. The patient

may even rise from his bed, and walk, and may feel no pain, but finds that he is giddy; the whole trouble seeming to rest here, the person gradually returning to his accustomed health, or this stage may go on until it attains to an unnatural intensity, the pulse becomes too frequent, the tongue is red, the skin is hot and sometimes covered with a warm perspiration, merging into a cold clammy sweat, the respiration is hurried, and delirium, especially at night, is apt to supervene, convulsions ensue, and twitchings of the muscles may be observed, succeeded by partial paralysis; such, in the majority of cases, are the ante-mortem conditions given by different surgeons to concussion of the brain. Now let us look into the after-death appearances as they are presented to our view through the agency of the scalpel and chisel.

The calvarium is opened, the brain exposed, and what do we find? "In one case no deviation from the healthy structure; in another, simply great congestion of the cerebral vessels; in another, numerous points of extravasated blood scattered through the brain-substance; in another a bruised appearance in some parts of this organ." The teaching of the different schools is, that in simple concussion we may either find nothing in the brain to prove that this organ has sustained any injury, the brain-substance and its membranes appearing to be perfect in all their parts; or we may find certain lesions, plainly showing how much the cerebral substance has suffered.

As surgeons and pathologists, however, we must not be satisfied at the mere blush of reason that pronounces these various terminations to be dependent on simple concussion of the brain, but we should examine each case carefully and critically, and determine, by the most rigid scrutiny, who die from simple concussion of the brain, and who succumb to other fatal conditions. Now, let us examine first those cases of instantaneous death ascribed to concussion of the brain, in which no deviation from the healthy structure of the cranial contents is detected. About a century and a half ago the first case was published in which it was clearly and emphatically stated that death followed instantaneously concussion of the brain; the dissection of that organ showing that not a single trace of injury was found either in the cerebral substance or its covering.

This is the celebrated case of Littre, to which those who believe in the theory that death does take place from shock alone point as the sustaining argument of their belief. The case may be thus stated: A malefactor, young and vigorous, who was sentenced to be broken on the wheel, determined on suicide. Headforemost, with his hands pinioned behind his back, he rushed violently across the prison cell and dashed his head against the wall, and, in a moment, fell dead. Post-mortem revelations showed "everything within the skull to be perfectly healthy, save that the brain did not nearly fill the cavity of the cranium, as it usually does, and that its substance, as well as that of the cerebellum and of the medulla oblongata, was both to the touch and the sight, closer and more compact than usual."

M. Littre, adds, "From the violence of the shock the brain had shrunk considerably, and possessing but little elasticity, it could not recover itself; in consequence of which the distribution of the nervous influence throughout the body failed in an instant."

This is the celebrated case on which so much reliance has been placed as affording the strongest proof that simple concussion of the brain may produce *instant death*. Strange to say, however, that the post-mortem examination was strictly confined to the head; no other organ was examined to ascertain whether death may not have ensued by causes *outside* of those already mentioned, such as a broken neck or a lacerated heart.

In Sabatier's case (*Med. Operat.*, t. ii, page 400) also, as well as that of Boyn, published in 1818, and the two cases of Mounier, published in 1834, no appearance of injury was discovered in the brain or its membranes, and no examination was had of *other* internal organs; consequently it cannot with justice be said that in either of the cases mentioned death was produced by concussion. It is absolutely imperative in all cases of sudden death from injury, to examine the heart and spinal cord as well as the internal organs of the brain, before the opinion is given that death was due to simple concussion of the brain. Two cases bearing strongly upon this theory may be related.

CASE 1.—A man fell from a height, and died, as it was thought, of simple concussion "of the brain." "He was collapsed and in

a state of perfect insensibility. There was no paralysis, neither were there any spasms of the muscles. In this state he remained for some hours, and then died. The head was examined; not a single trace of injury was detected in any of the cranial contents. Everything was perfectly healthy. The case was set down by all those who had seen it during life, and were present at the examination, as a case of death from concussion of the brain." It fortunately happened, however, that Dr. Deville, one of the surgeons of the hospital, concluded to examine the spine, and upon opening the canal he found "a most extensive extravasation of blood completely filling up this canal in its whole length, and extending upwards, even beyond the point where the spinal marrow had been cut across, where the brain was taken out."

CASE 2.—A boy fell from a considerable height, and was carried into St. George's Hospital with other severe injuries accompanied with urgent symptoms of concussion of the brain, and died in a few hours. The head was examined, and "save a little extravasated blood beneath the arachnoid on the surface of both hemispheres, with slight bruising of the brain in two places at its under surface, the brain and its membranes were perfectly healthy, and so too was the chest examined, and here was found a *rupture of the muscular part of the septum of the ventricles of the heart* right up to its outer covering, which alone prevented the blood from being poured into the pericardium." And what makes this case more interesting, so far as our present subject is concerned, there was not the slightest indication of any injury having occurred to the chest.

These and other instances of a similar nature which have fallen under the notice of several surgeons, go very far to prove that sudden death from injury in these cases does not always depend upon concussion of the brain alone, and if the history of all these cases were properly investigated, I think our conclusions with reference to death occurring so frequently from concussion of the brain alone would be somewhat modified. I am aware that this opinion differs widely from the doctrine generally taught and accepted in our schools, but I believe the principle will be demonstrated by future observation, that concussion never

proves fatal without leaving behind some positive evidence of appreciable lesions done to the brain-substance.

M. Fano, a latè writer on this subject, reaches the conclusion "that the symptoms generally attributed to concussion are due *not* to the concussion itself, but to *contusion* of the brain, or to extravasation of blood." In this connection, Prescott Hewitt, one of the surgeons of St. George's Hospital, says, that "in every case in which I have seen death occur shortly after, and in consequence of injury to the head, I have invariably found ample evidence of the damage done to the cranial contents; setting aside the cases of large extravasations of blood upon the surface of the brain, the most speedy death has occurred in instances where specks of extravasated blood have been diffused throughout the cerebral substance, or where blood has been extravasated into the structure of the pons Varolii." The consideration of the above cases has reference only to concussion *rapidly proving fatal.* I shall now discuss those less severe cases, where the injury has been comparatively slight, and where death takes place some time afterwards. The condition of the cerebral structures in these instances is found to be more or less injured, intense congestion permeating the whole of the brain-substance, "so much so," says a distinguished author, "that upon slicing the brain, *innumerable blood-points* may be seen everywhere thickly studding both the gray and white substance." These appearances have been observed also by Morgagni, Bright, Fano. (*Compènd. de Chirurg.*, t. ii, p. 603.) M. Denonvilliers mentions a case, strongly corroborative of these observations, in which the patient died three-quarters of an hour after the injury. As far as the brain itself was concerned he states "that there was not even a speck of extravasation, either on its surface or in its substance, the consistence of which was perfectly natural. But the intense congestion of the vessels of the brain gave rise to a manifest alteration in the color of its structures, its cut surfaces being thickly studded with the minutest blood-points, from whence oozed specks of fluid blood upon gentle pressure."

In those *slightest* cases of concussion where there is only a temporary stunning with complete restoration of the senses, it is usually considered that the disturbance of the brain circulation

is too little to produce any lesion of the brain-structure. In such instances death rarely occurs from *effects* of brain injury, but may be produced by *lesion* of some other important organ. "In two cases of this kind," says Mr. Hewitt, "which I have had an opportunity of examining, and in which symptoms of concussion of the slightest nature had altogether passed off within a very short time, I was surprised to find the brain-substance itself was actually injured. In one case, in which, after a blow on the head, there had been giddiness for a few minutes, and then complete recovery, some patches of contusion were found at the base of the brain, marked by minute specks of blood closely clustered together. These patches were in two or three places of the size of a shilling, and extended about a line in depth into the structure of the brain. There were no disseminated specks of extravasated blood. In the other case, after a fall on the back of the head, the symptoms of concussion soon passed off, and the patient died of some other disease eight days after the accident. In the cavity of the arachnoid, and adhering to its parietal layer, were found other layers of extravasated blood. The large veins on the surface of the brain were congested. The brain-structure itself was much darker than usual from congestion, and in the centrum ovale, close to the right side of the corpus callosum, and extending partly into it, was an extravasation of blood the size of a nut. This clot still retained the greater part of its coloring-matter, but the cerebral substance around it was neither discolored nor softened. Well-marked traces of injury were found after death in the brain itself in both these cases. May not such lesions," he adds, "exist in many so-called slight cases of concussion of the brain which recover? My own impression is," he concludes, "that such appearances exist more frequently than is generally supposed."

Among other morbid appearances, as the result of concussion of the brain, has been mentioned, "separation of the dura mater from the inner surface of the cranium from blows upon the vertex." This is by no means a rare condition, and in fact, in all cases where the blow has been severe, separation has proved of common occurrence.

CONCUSSION OF THE BRAIN, HOW PRODUCED.

Concussion of the brain may be produced in different ways: first, *directly*, from the force applied to the vertex itself; or, secondly, *indirectly*, from the shock being transmitted through some other portion of the body. The actual morbid condition of the brain-structure from shock has been very ingeniously demonstrated by M. Gama, who filled a glass mattrass with a solution of isinglass as nearly as possible of the consistence of the brain, in which he arranged several threads. After trying a series of experiments tending to elucidate the actual condition of things in the brain after a blow, he concludes thus: "that a blow bearing upon any part of the vault of the skull, in such a manner as to have its opposite point also in the vault, will lead to a separation of the brain from the skull at these two points. But if the blow bear directly upon the vertex, the separation of the brain will only take place at the point struck; towards the base of the skull, all that will occur on account of the flatness and extended surface of this part, will be disseminated *contre-coup*. Lastly, in a shock transmitted through the base of the skull, the motion being distributed from within outwards, there will be no separation of the brain at any point of the skull. Thus pressed outwards, the cerebral mass, on the contrary, here becomes applied all the more forcibly against the osseous case." These experiments, although far-fetched, are nevertheless entitled to considerable credit for their originality, and certainly give us some idea of what takes place within the cranium after an injury of the kind of which we are speaking.

It has been attempted by late writers on surgery to draw sharp and distinctive boundaries between *concussion* and *compression* of the brain; but I am constrained to remark, from considerable experience both in civil and military service, the latter of which has given me abundant facilities for extended observation, that it is impossible for the practicing surgeon to depend upon a single symptom or combination of symptoms that will enable him to determine *positively* between concussion and the middle grades of compression of the brain. In the *slighter* cases the effects of shock are transitory; loss of sensi-

bility and muscular action and derangement of the circulation soon pass away, and the patient returns to his normal condition, often unconscious of what has happened. In the *severer* forms of concussion the patient falls to the ground as if dead, lying senseless and motionless, the breathing scarcely perceptible, and the pulse at the wrist gone, and the skin covered with a cold clammy sweat.

In a few hours, perhaps minutes, depending upon the gravity of the injury, he passes away unconscious of the shock received, and oblivious to everything around him.

As practical surgeons, however, we are often called upon to treat cases of "concussion" that hold the middle ground between the classes mentioned, and which are of the greatest interest and importance both to the practitioner and patient.

Let us now consider our duty as surgeons to this class of cases of which I have just spoken. You are called in a hurry to a patient who has just received a fall or a blow, and you find him at first insensible, lying motionless and all but pulseless, the skin is cold, and the countenance marked by extreme pallor. The breathing, although feeble, is generally performed easily and naturally. The pupils may be either contracted or dilated, or, what often happens, one will be contracted while the other is dilated. The urine and fæces are sometimes passed involuntarily, and in this condition the patient may remain for hours or longer before reaction sets in. Now what is to be done? My advice is to do nothing more than to place your patient in the most favorable condition for the rallying stage. You may examine and remove the necktie, if found to interfere with the circulation, and look to the tightness of the underclothes on the various parts of the body. When constriction occurs, remove it; see that your patient has access to the pure air of heaven, and if in a close room, advise that all bystanders be ejected from the presence of the sufferer, except perhaps a single assistant or two that may be needed in the future conduct of the case. A young surgeon, under such circumstances, is not unfrequently considerably embarrassed by the ignorant crowd around him, who may be clamoring that this or that thing be done, and interfering with his otherwise good judgment under such circumstances.

In a short time you may be enabled to arouse your patient by a sharp decisive tone, and by pinching the leg you may find it moved, with an expression of peevishness about the countenance. The pulse will soon be felt at the wrist, growing fuller and more distinct almost minute by minute. The color of the cheek returns, and the skin gradually becomes warmer as reaction increases. Among the earlier symptoms of recovery may be mentioned *vomiting*, which is always considered a good symptom and often appears to hasten restoration.

Later in the period of recovery, and as soon as the patient is sufficiently conscious to complain, he will place his hand upon his head, and tell you of a headache of greater or less severity, which continues for some time and gradually passes away, or may be followed by symptoms ushering in intracranial inflammation.

With such an array of symptoms after an injury of the head, is it possible for the surgeon to determine the exact morbid condition of the cerebral substance and say, this suffering is caused by *concussion* of the brain alone, rather than an extravasation of blood within the membranes or the arachnoid? I think not.

CASE I.—An elderly woman was admitted into St. George's Hospital severely injured in one of her hands, having been knocked down and run over by a cab, and suffering from concussion of the brain, the symptoms of which soon passed off, and in a few days she was up and around the ward; erysipelas set in soon after, the patient succumbing to the disease after being in the hospital for two months. The head symptoms from first to last were attributed to concussion of the brain, and yet after death post-mortem examination revealed extensive layers of blood, organized and membrane-like, occupying the cavity of the arachnoid on either side.

CASE II.—A man, aged 53, having received a severe fall, was admitted into the same hospital, and was pronounced as suffering with severe concussion of the brain. In a short time he recovered from those symptoms, and was permitted to walk about his ward in an apparent stage of recovery. Two months after the accident he was taken with erysipelas and died; after-death appearances demonstrated a perfectly healthy brain-substance, but extensive extravasations of blood, as in the preceding case, were

found within the cavity of the arachnoid and adhering to the parietal layer of the serous membrane.

It cannot be doubted that at least in very many instances this ecchymosis, this extravasation of blood beneath the visceral arachnoid membrane, into the meshes of the pia mater (connective tissue), denotes a genuine contusion of the brain or spinal cord, as the case may be, and that in this way a positive pathological lesion, perceptible to unaided vision, is superadded to the concussion; such cases of concussion, complicated with contusion of the nerve-tissue where the cerebrum happens to be the part involved, exhibit a marked tendency to the occurence of meningeo-cerebral inflammation and oftentimes cerebral abscess.

The following case strongly corroborates these views:

CASE III.—Col. F., of the New York City Zouaves, was wounded at the battle of Manassas, July 21st, 1861, by a spent ball, which knocked him off his horse and rendered him insensible. The wound was small in size, superficial in character, and situated on the left side of the head three inches above the meatus auditorius. It healed without difficulty. The principal symptoms in this case, until near the close, were referable to concussion and irritation of the brain. He died on the evening of August 14th, twenty-four days subsequent to the infliction of the injury. It was thought that he would recover until about four days before death. He was partially paralyzed on the right side (hemiplegia) toward the last, and was comatose just previous to death.

Autopsy.—Doctor Gouly, U. S. A., made the post-mortem examination, which revealed the fact that the external wound was superficial and the skull uninjured, that there was copious sub-arachnoidal effusion and an unusual quantity of yellow-colored serum in the ventricles, with an abscess in the brain-substance situated directly beneath the wound in the scalp. This abscess was of about the size of an English walnut, superficial in situation, and surrounded by softened cerebral tissue. The visceral and parietal arachnoid over the abscess were glued together, to some extent, by adhesive inflammation, so that in endeavoring to turn back the dura mater while making the autopsy, though it was carefully done, the abscess was torn open. There were

also traces of extravasated blood three or four weeks old in the sulci of the brain beneath the visceral arachnoid membrane over the seat of the abscess, and likewise at the anterior extremity of the left cerebral hemisphere. There was a flattened clot of blood, black in color, and apparently three or four weeks old, in the fossa at the base of the middle lobe of the left cerebral hemisphere. The dura mater in relation to it was somewhat thickened.

Medical Inspector Hamilton, U. S. A., in describing this variety of injury, says: "First I would remark that you may have an injury of the scalp of an exceedingly trivial character, which may in the end prove fatal. A ball may simply tear off the hair of the scalp and create a *very* slight abrasion of the skin, yet the bone being so near, and the brain so close to the bone, it is very probable that serious michief has been done. The bone in that situation may be so injured as to lead to necrosis, or a sufficient shock may be given to the brain and its envélopes to bring on inflammation and cause the probable death of the patient." (*Medical and Surgical History of the Rebellion.*)

CASE IV.—Private J. Buckland, Company H, Second Missouri Artillery, received in a railroad accident near St. Louis, August 13th, 1864, a severe contusion of the head. He was received into Schofield Barracks Hospital on the same day with symptoms of severe concussion of the brain. His condition was relieved in a short time, but after a few days paralysis of the motor nerves of the lower extremities was observed, and symptoms indicative of softening of the brain ensued. The case terminated fatally September 14th, 1864.

It is to be regretted that no autopsy was held in this case, therefore the actual condition of the brain-substance caused by the injury can only be arrived at by an analyzation of the symptoms, and comparing them with other cases where the after-death appearances demonstrated the existence of morbid lesions.

CASE V.—Private Edward McKeeby, Company C, Illinois Volunteers, aged 30 years, on June 12th, 1864, while riding on a railroad car, received a contusion of the right side of the occiput, by striking violently against a bridge. He was admitted on June 15th, into Hospital No. 8, Nashville, Tennessee, at which time there were no evidences of violence, and no pain; occasional

delirium was the only indication of mischief to the contents of the cranium. On the third day the symptoms were greatly aggravated, coma supervened, with involuntary discharges, and death took place on June 25th. At the autopsy, there was found upon the superior surface of the right cerebral hemisphere and beneath the pia mater, a small collection of pus, and upon the left side a coagulum of blood. The inferior surface of the cerebellum, medulla oblongata and pons Varolii, were covered with a thick coat of pus. A clot of blood was found interposed between the dura mater and cranium, below the right lobe of the cerebellum. There was a contusion, with extravasation of blood beneath the scalp, on the right side of the occiput. No fracture could be detected.

This case, similar in its after-death appearances to cases marked I and II, is additional evidence of the position I have taken in regard to the fact that concussion produces actual *lesion* of the brain-substance, which is the cause of death, and not the shaking up or disturbance of the nerve-molecules, as laid down by some authors.

CASE VI.—Sergeant S. Warner, Company C, 34th New Jersey Volunteers, aged 31 years nearly. Beverly, New Jersey, July 15th, 1864, fell from a rail car in motion, and received a very severe contusion of the head. He was taken to the Beverly Hospital, and presented the symptoms of severe concussion, but, in addition, the pupils were quite irresponsive to light and vision was extinct. The symptoms of concussion were soon relieved, but vision did not return; on April 4th, 1865, the patient was transferred to Satterlee Hospital, Philadelphia, and discharged from service May 24th, 1865, for traumatic amaurosis, completely and perfectly blind.

CASE VII.—Corporal J. B. Hefler, Company I, 7th Pennsylvania Cavalry, aged 25 years, was thrown from his horse at Louisville, Kentucky, April 15th, 1864, falling between his own horse and that of his comrade, and striking his head. His injury was supposed to be of a slight character, but he suffered from constant headache until the 29th of August, when an abscess commenced to form over the right parietal, which was opened on November 30th. The patient was then transferred to

the hospital at Madison, Indiana. On his admission his pulse was 90, skin dry, tongue coated and bowels constipated; on examining the seat of injury the parietal bone was found to be denuded and externally necrosed for the space of one and a half inches in width by two and a half inches in length. On January 1st, 1865, very marked symptoms of compression were ushered in suddenly, convulsions recurring in rapid succession for two days, when a comatose condition supervened, which lasted until the patient's death on January 13th, 1865. At the autopsy a large abscess was found in the right hemisphere of the cerebrum, communicating with the lateral ventricle, and containing several ounces of pus. There were evidences of inflammation of the cerebellum and meninges of the brain. Other cases might be mentioned, were it necessary to adduce them, to prove that under such circumstances as I have mentioned the symptoms usually given as belonging to concussion were in reality dependent upon the extravasation of blood within the membranes.

There is also many a case, says Prescott Hewett, recorded by eminent surgeons, and as a matter of course reported over and over again, in which partial paralysis and loss of memory are said to have taken place after and to have been due to concussion only; but which in reality were dependent upon some extravasation of blood, or to some local injury done to the brain-substance. *The Confederate States Medical and Surgical Journal*, published under the auspices of Surgeon-General S. P. Moore, C. S. A., contains no reference to the treatment of concussion of the brain, and the report and the treatise above alluded to furnish the scanty information to be derived from the Confederate records. Of five hundred and eight cases of injury of the head, as "collated in the *Medical and Surgical History of the Rebellion*," producing concussion of the brain, three hundred and thirty-one were injuries of the integuments chiefly, seventy-two were of a severer character with cerebral complications. But concussion of the brain, temporary in its effects, was observed in a large proportion of three hundred and thirty-one slighter cases, and in fifteen of them this complication was attended by profound insensibility and collapse, and appeared at first to be very serious, though speedily followed by reaction and recovery. Severe com-

motion or concussion of the brain was observed in fifty-nine of the seventy-two cases mentioned, and altogether in seventy-four of the four hundred and three cases of miscellaneous injuries of the head without fracture. In one case, says the same authority, "concussion *produced almost instant death*, but neither of the thirteen other cases which resulted fatally from the direct effects of concussion throw any light upon the functional or external alterations of the brain resulting from this shock, but leave the subject, which has perplexed pathologists for so many centuries, as inscrutable as ever." These remarks with reference to the fatal "effects of concussion" produced by the several injuries upon the brain or other organs highly conducive to life, amount to very little in the absence of the only means possessed to arrive at the correct conclusions. If, in each of the seventeen cases referred to, *autopsical examinations had been made*, and in no case was there found any lesion of the brain, spinal cord, or other highly vitalized organ, sufficient to cause death, then might the sentiment of our learned and esteemed collaborators reflect some little discredit upon the investigations and researches of our surgical brethren.

But when such opportunities as these to establish a great principle were permitted to pass away without improvement, it ill becomes an author or compiler of such a valuable and instructive work as the *Medical and Surgical History of the War of the Rebellion* to speak of the *inscrutability* of a subject when all the avenues to its enlightenment are hedged in by non-improved opportunities of research. If the same zeal and search for knowledge had taken possession of those surgeons of the army whose opportunities were frequent to unravel this much-vexed question as have marked the persevering and indefatigable efforts of such men as Bright, Fano, Prescott, and others, I have no doubt that the real truth of this important matter would have been ere this definitely settled.

Concussion of the Spine.—The term concussion of the spinal cord is intended to cover all those effects produced upon the cord by violence which reach it directly, and is in direct contrariety to the morbid conditions of which I have already alluded to, and which implicate this portion of the body indirectly. Therefore

in case of shock to the cord the inmost recesses are invaded immediately, the organic changes produced by the injury beginning and terminating within the spinal canal. The term "concussion," as applied to the spine, has been derived, says a distinguished writer, from a supposed analogy between the injuries occurring to its kindred organ, the brain. When a man's skull is beaten in and a fragment is depressed, or when a torn artery throws out blood which coagulates and produces pressure on the brain, paralysis of one part of the body ensues. The surgeon elevates the depressed bone, or exposes and washes away the coagula, and forthwith, in favorable cases, the paralysis disappears. So when the spine is fractured, and displacement of its fragments takes place, the end of one of the portions presses upon the cord, and it is conceived that the paraplegia resulting from the accident must be owing to that compression. But certain cases of injury of the back are met with in which paraplegia has directly or shortly afterwards occurred, and in which, on examination of the spine after death, "no fracture, displacement, extravasated blood, or anything capable of compressing the cord, can be discovered. The explanation therefore given is, that the spinal cord had been damaged by concussion."

The question of "concussion of the spinal cord," and of the phenomena attending it, has occupied the attention of surgeons of late years, not only on account of the formidable evils that result from it, but from the frequent occasions it affords for compensatory damages arising therefrom in our courts of justice. The total sum paid in 1867, as compensation for personal injuries by the railroad companies of Great Britain, was $347,000. The number of travellers the same year was 287,000,000, of which number 19 were killed and 638 were injured.

From the anatomical peculiarities and marked differences between the cranium and the spine, it can be readily understood how "concussion" applied to the brain should differ in its effects from "concussion" applied to the spine. The *cranium* is a hollow sphere; its walls are dense and elastic, and a sharp blow inflicted upon one portion of it will cause a vibration to run through its walls in every direction. The brain, inelastic, of a pulpy and doughy consistence, although filling completely the

cavity of the cranium, and corresponding accurately with its elevations and depressions, is incapable, however, of receiving vibrations from the bony case surrounding it. Hence, in those vibratory movements of the skull from sharp or severe blows upon its surface or a succession of *shocks* communicated to the brain corresponding with the vibrations transmitted through the bony tissue, the severity of these shocks, and their frequency, even when not forcibly inflicted, will produce more or less injurious consequences to the delicate brain-structure. The structure of the vertebral column, both within and without the bony canal, is entirely different, however, from the cranium and its contents. The spine is a long, flexible, cylindrical tube, divided into numerous segments, between each of which a *damper*, in the form of an intervertebral substance, is inserted, and lies imbedded in a great mass of muscular tissue, which serves as a cushion to protect it from external violence. The nerve-tissue forming the spinal cord lies some distance removed from its bony covering, and in this respect differs widely from the position the brain occupies to the inner table of the skull. Thus it will be seen, in the beautiful adaptation of things, how the cord is protected from injuries inflicted upon its bony covering, and is incapable of feeling the vibrations transmitted to its osseous case. The effect of an injury to the head, as relates to the brain, is vastly different from an injury to the spine as relates to the cord. In the one case the skull receives a blow or shake and transmits it to the brain as a whole, which is correspondingly concussed. In the other, the spine receives the injury, and the damage can only be felt at the part where the blow is given. In the first, then, the injury is general, and in the latter local.

The *primary* symptoms of the cord, immediately and directly produced by a severe blow upon the spine, necessarily vary in severity and extent according to the situation of the injury, the force with which it has been inflicted, and the amount of organic lesion that the delicate structure of the cord has sustained by the shock or jar to which it has been subjected.

A severe blow upon the upper cervical region may produce instantaneous death; a severe blow upon the dorsal region may induce more or less complete paraplegia.

In some cases the paralysis of the lower limbs has been instantaneous and complete, sensation and motion both being affected, with loss of power over the sphincters. In other cases the nerves of motion only have been paralyzed, sensation remaining perfect; occasionally the reverse of this takes place, loss of sensation and impairment taking place with partial loss of motion; one leg is frequently more severely affected than the other, or the two legs may be unequally affected as to sensation and motion, sensation and motion being impaired, but in varying degrees in the two limbs.

There may be complete loss of power over the sphincters, both of the bladder and anus, with incontinence of urine and fæces, or the loss of power may be confined to the bladder only. This is the case especially where there is paralysis of motion rather than of sensation in the lower limbs. The condition of the urine will also vary according to circumstances. If there is no retention it will continue acid; when retention does not exist the urine usually becomes alkaline. And Ollivier has observed, in a single case of retention, that the urine was so charged with uric acid that on the introduction of the catheter it was perfectly loaded with it.

Priapism occurs more frequently in cases of laceration and irritation of the cord rather than as the result of concussion.

The temperature of paralyzed parts is notably lower than that of the healthy parts of the body, and it has been observed, in a few cases, that there was almost complete absence of perspiration. The *secondary* symptoms of severe concussion of the spine are similar to the inflammatory conditions that take place in the meninges and in the cord itself. *Pain* is experienced in some *portion* of the spine, increased both by pressure and especially rotary motion; the vertebral column, on this account, assumes a condition of rigidity; the patient, whenever he attempts to change his position, moves the back as a whole. This pain frequently extends down the limbs, or around the body, giving to the patient the sensation of a cord drawn tightly around it. If the inflammatory action is not subdued, spasms, like trismus, are developed first, which soon become general, and extend over the body and

limbs, and finally produce death from exhaustion of the vital powers.

If the inflammatory action assume a subacute or chronic character, progressive and permanent alterations of structure are developed in the cord, which ultimately leads to paralysis of an incurable nature, generally beginning in the lower extremities and gradually affecting the brain, undermining the whole physical system.

Concussion of the spine, from a severe and direct blow upon the back, may prove fatal at varying periods after the injury, depending upon the situation where the blow is received, and the lesions that follow in train. Abercrombie says: "Concussion of the cord may be speedily fatal without producing any morbid appearances that can be detected on dissection," but in the large majority of cases death is occasioned by direct and demonstrable lesion of the spine or cord.

Spinal concussion leads to a fatal termination in one of the three following lesions:

1st. Hæmorrhage within the spinal canal.

2d. Laceration of the membranes of the cord and extravasation within the medullary substance.

3d. Disintegration and, perhaps, inflammatory softening of the cord.

In the *Medical and Surgical History of the War of the Rebellion* only seventy-seven cases are reported of "incised wounds, contusions, and miscellaneous injuries," while the number of gunshot wounds is very large. Of the incised wounds of the spine only two are reported in the *Medical and Surgical History of the War of the Rebellion*, one with a fatal termination, the other resulting in recovery.

Seventy-nine cases of contusion and miscellaneous injuries of the spine are recorded, caused principally by falling from horses, by blows from muskets or other blunt weapons, and by falling of trees. A few proved fatal from fracture or luxation, which scarcely comes under the province of our subject, the injuries in these instances almost always terminating fatally. Gunshot wounds of the spine were commonly fatal; yet a few examples were recorded in which the transverse or spinous apophyses only

were injured, in which more or less complete recovery ensued, and fewer still, in which the patient survived for a protracted interval after fractures of the bodies of the vertebræ.

The following cases, which I have thought of sufficient interest touching this subject, have been selected from the *Medical and Surgical History of the War of the Rebellion*, and have especial reference to the *severer* forms of injury to the spinal column.

CASE I.—Corporal John B——, Company C, 10th New York Volunteers, of good constitution and physical condition, while felling trees at Hatcher's Run, Virginia, March 11th, 1863, was struck across the dorsal and lumbar vertebræ by a falling limb, which had been severed by a shell. Being knocked senseless, he remained in this condition for an hour or more, until awakened by the motion of the ambulance that conveyed him to regimental headquarters.

On returning to consciousness he was unable to move the lower portion of his body. Arriving at Patrick's Station, he was cupped, and mustard applied to the calves of the legs and to the spinal region. He complained of pain in the lower parts of the body. He was blistered, and the blisters dressed with lint. He was sent to City Point, and finally to Washington, where he entered hospital on the 19th. When admitted he was in a semi-comatose condition; complete paraplegia; sensation perfect. There was some febrile action, and a very severe diarrhœa. He passed his urine and fæces involuntarily; appetite very good; pulse full and bounding; emaciation slight. The temperature of the right leg was slightly higher than that of the left, but both very cold; skin moist.

The blistered parts on each leg were suppurating slightly. The parts in the region of the sacrum were in a gangrenous condition. Opiates were given at night, and chlorides used to cleanse the gangrenous wounds over the sacrum. Under the administration of astringents the diarrhœa ceased by the 25th. The patient, however, continued to sink, and died on March 29th, 1865. At the autopsy, the first lumbar vertebra was found transversely fractured entirely through its body, at its upper third, with each pedicle broken, and the left transverse and spinous encroaching upon the cord, which was lacerated at the

lumbar and dorsal junction. The membranes were torn entirely across, except a few fibres anteriorly and posteriorly, and were congested above and below the seat of injury. Clots of diffused blood were found near the fracture. The lower portion of the cord, severely lacerated, was drawn up into a bundle at the seat of injury, entirely deprived of the membranes.

The pathological specimens are Nos. 149 and 150, Section I, A. M. M., and were contributed, with a history of the case, by Acting Assistant Surgeon, W. Dusenbury. *Medical and Surgical History of the War of the Rebellion.*

CASE II.—Private John A. I——, Company I, 1st New York Engineers, aged 18 years, while bathing at Holly Island, South Carolina, July 27th, 1864, dived from the beach into two feet of water, striking upon the top of his head against the hard sandy bottom. There was immediate loss of sensation and power of motion below the shoulders and in the upper extremities, except over and in the flexor muscles of the forearm, and apparently the deltoid, though the extension of the arm at the shoulder was rather feeble and intermediate, and was probably performed by the long or scapular head of the biceps. Respiration was diaphragmatic; pulse but little accelerated; consciousness complete; there was some though not excessive pain in the lower cervical region. He was at once conveyed to the hospital for detachments and civilians, at Folly Island, and laid on his back on a mattress. An anodyne was given during the night. Eighteen hours after the injury fever set in, followed by some delirium; an enema was given, which soon procured a copious alvine discharge. From the fifty-fourth to the sixtieth hour a similar fever prevailed, which was allayed by the application of ice to the head and mustard to the feet and thighs, with wet cups along the spine. After the first operation there was some incontinence of fæces and of flatus, but not of urine, the sphincter of the bladder retaining its power to the last, although, of course, the urine was drawn off by the catheter. Asphyxia did not become prominent until the sixty-second hour, but steadily increased until death, which occurred on July 30th, 1864, sixty-eight hours after the reception of the injury. At the autopsy, two hours after death, the body of the sixth cervical vertebra

was found vertically fractured, the posterior edges of the partially separated halves pressing upon the anterior surface of the cord, opposite the origin of the seventh and eighth cervical nerves, and the third and fourth of the brachial plexus. The crural arch of the sixth cervical vertebræ was also broken down, and there was dislocation of the spinous processes of the fourth, fifth, and sixth cervical vertebra, and sufficient fracture of their arches to injure the cord, including most of the roots of the sixth cervical but not at all those of the fifth nerve. At these points of direct injury the substance of the cord was inflamed, and disorganized into a red pulp. The inflammation and disorganization had also extended upward along the gray commissures and the posterior portion of the gray substance almost to the medulla oblongata. The origin of the phrenic nerve having been untouched by the original injury, the diaphragm was able to continue its function of abdominal respiration until, perhaps, the advancing inflammation invaded its structure. The pathological specimen is No. 3159, Section I, A. M. M., and was contributed, with a history of the case, by Assistant Surgeon Burt G. Wilder, 55th Massachusetts Volunteers. *Medical and Surgical History of the War of the Rebellion.*

Of concussion of the spinal cord and contusion, very little is said in the report, although these accidents seem to have been by no means rare during the war. Dr. John A. Lidell, in a well-digested and creditable compilation of quite a large number of these cases that came under his observation, has presented his views quite fully and given interesting histories of their injuries.

Dr. Chisholm, an authority of general acceptation by the Confederate military surgeons, has written a very able treatise on *Gunshot Wounds of the Spine*, in which he arranges and epitomizes wounds of this character, concluding that myelitis and intervertebral extravasations are the occasional consequences of these injuries. He speaks of the explosion of a shell in the vicinity of the back as a not infrequent cause of such results. He advises extract of Belladonna, in half-grain doses, applications to the spinal cord, and the internal use of Strychnia, to hasten convalescence from paraplegia. In gunshot fractures of

the vertebral column, accompanied by lesions of the cord, his prognosis is gloomy: "The patient dies; no course of treatment offering any prospect of success."

Dr. Paul F. Eve, another Confederate surgeon of ability and large observation, in a monograph read before the Tennessee Medical Society, is, however, of a very different opinion, and cites two cases where balls were lodged in the vertebral column and the patient survived for a long time.

In the preceding pages I directed your attention to the symptoms, effects, and pathological conditions of the severer class of injuries affecting the spinal cord. I now propose to point out another extremely interesting kind of cases, of a less severe type than those preceding, where the relation between cause and effects are not only less cognizable to the surgeon at the time of injury, but, in consequence of the length of time between the infliction of the injury and the development of the more serious phenomena that follow, it becomes a matter of considerable acumen on the part of the surgeon to connect the one with the other. This class of injuries has been frequently brought before the attention of medical men in consequence of the too frequent occurrence of railway collisions both in this country and Europe, and, as a result, innumerable actions for damages have been brought in courts for injuries sustained in this manner.

The symptoms following these injuries have been so variously interpreted by surgeons, and their significance has been referred to so many other conditions of nerve-derangement entirely foreign to the real question in issue, that no little discrepancy of opinion has arisen to affect the ultimate result of the case, the permanence of the symptoms, and the recovery, or the reverse, of the patient.

Mr. Erichisen, in analyzing, arranging, and systematizing these important and very interesting questions, adduces the following points: "1st. The effect that may be produced on the spinal cord by slight blows, when inflicted on the back or distant part of the body. 2d. The length of time that may intervene between the alleged injury and the development of the symptoms. 3d. The diagnosis of the symptoms of 'concussion of the spine' from those arising from other morbid states of the

nervous system. 4th. The grounds on which to form a prognosis as to the probable result."

I shall endeavor to illustrate these important points in the injuries that occur not only by collision in railway cars, but in the ordinary walks of life, by cases covering as nearly as possible the conditions of symptoms as they exist, and their verification by autopsical examinations. As a rule, all concussions are recognized by certain symptoms, whether they be caused by collision in a rail car or by any other accident; hence it is an error to suppose that any peculiar phenomena exist as to railway accidents. A *severe* accident by collision in a rail car presents the same grade of symptoms that a like injury does caused either by a fall or a blow.

In 1829, Abercrombie thus writes: "Every injury of the spine should be considered as deserving minute attention. The more immediate effect of anxiety in such cases is inflammatory action, which may be of an acute or chronic kind; and we have seen that it may advance in a very insidious manner even after injuries that were of so slight a kind that they attracted at the time little or no attention."

These remarks have been verified by Bell, Ollivier and other writers on this subject. I will illustrate this point by the following:

CASE III.—"Mr. R., 35 years of age, a farmer and miller, of very active habits, accustomed to field sports, and much engaged in business, habitually in the enjoyment of good health, was in a railway collision that took place on November 4th, 1864. He received a blow upon his face, which cut his upper lip on the left side, and was much and severely shaken. He did not lose consciousness, but was able shortly to proceed on his journey. On leaving the station to proceed to his home it was observed, by a friend who drove him, that he did not appear to recollect the road, with which he was familiar, having been in the daily habit of driving over it for years.

"On reaching home, feeling bruised, shaken, and confused, he took to his bed, but did not feel sufficiently ill to seek medical advice until November 9th, five days after the accident, when he sent to Mr. Yorke, of Stanton, who continued to attend him.

But, notwithstanding every attention from that gentleman, he progressively, but slowly, grew worse.

"I saw Mr. R. for the first time on the 18th of February, 1866—fifteen months after the occurrence of the accident—when I found him in the following state: His face was pallid, very livid, indicative of much suffering. He looked much older than his alleged age (36 years). He was sitting with his back to the light; had the Venetian blinds drawn down so as to shade the room, the light being peculiarly distressing to him. His skin was cool; tongue slightly furred; appetite moderate; digestion impaired; pulse 104 to 106, weak and compressible. I understand, from Mr. Yorke, that it rarely fell below this, and often rose above it. He has not lost flesh, but all his friends say that he is quite an altered man. He states that, since the accident, his memory has been bad; that he cannot recollect numbers; does not know the ages of his children, for instance. He cannot add up an ordinary sum correctly. He will add up the same set of figures if transposed differently. Before the accident he was considered to be a peculiarly good judge of the weight of beasts. Since the occurrence, he has lost all power of forming an opinion on this point. He has been quite unable to transact any business since the injury. He is troubled with frightful dreams, starts and wakes up in terror, not knowing where he is; has become irritable, and cannot bear light nor noise. He frowns habitually, so as to exclude the light from his eyes. He complains of stars, sparks, and flashes of light, and colored spectra flaming and flashing before the eyes. He cannot read for more than two or three minutes at a time, the letters becoming confused, the effort painful to bear. On examining the state of the eyes, I find that vision is good in the right eye, but that this organ is over-sensitive to light. Vision is nearly lost in the left eye, so much so that he cannot read large print with it.

"His hearing is over-sensitive with the right ear, dull on the left side. He cannot bear noises of any kind, more particularly if sudden they are peculiarly distressing to him. Even that of his children at play annoys him.

"He complains of a numb sensation, accompanied by a tingling, burning sensation on the right side, in the right arm and

leg, more particularly in the little finger, and along the course of the ulnar nerve. The rest of the right hand feels numb. He makes no complaint of the left arm or leg. These sensations are worse in the morning.

"He cannot stand or walk without the support of a stick, only resting his hand on a piece of furniture. He can do so in this way on the left leg, but if he attempts to do so on his right foot, the limb immediately bends and sinks as if it were under him. His gait is very peculiar. He separates the feet so as to make a straddling movement, and brings one foot very slowly before the other. He advances the right foot less than the left, and does not raise the sole as far from the ground. The foot seems to come down too quickly. He does not drag with the toes, but does not raise the heel sufficiently, and is apt to catch it in walking, and in inequalities on the ground. Flexion and extension are more perfectly and rapidly performed with the left than the right foot. The attitude of his body in walking is very peculiar, the back is stiff, the head fixed, and he looks straight forward without turning it to the one side or the other. He has great difficulty in going up and down stairs, cannot do so without holding on to the banisters. The difficulty is greater in going downstairs, and if he attempts this without support, he falls or rolls over to the right side. There is no appreciable difference in the size of the two legs, but the right feels colder than the left. The patient complains of the coldness of both legs and feet.

"The spine has lost its natural flexibility, so that the patient kept the body perfectly straight, fixed, and immovable. He could not bend the body in any direction without suffering severe pain; this was complained of equally whether the patient bent forwards, backwards, or sideways. It was most severe in any attempt being made to twist the spine. He sits in a rigid and upright attitude.

"There is considerable pain at the occipito-atloid articulation, as also at that between the axis and atlas. If an attempt was made to bend the head forcibly forwards, or to rotate it, the patient suffered so severely that it became necessary to desist. When directed to walk around, the patient turned the whole

body, owing to the rigidity of his spine; he could not stoop so as to pick anything off the floor without going down on one knee.

"On examining the spine by pressure and percussion, three tender spots were found, one in the upper cervical, the other in the middle dorsal, and the third in the lumbo-sacral region. There is pain both on superficial and deep pressure at these spots. The pain is limited to the spine, and does not extend to the muscular structures on either side of it.

"The power of retaining the urine is very materially diminished. He passes water four or five times in the night, and every second hour during the day. The urine is subacid. The generative power, though impaired, is not lost. A remarkable circumstance has been noticed in this case by Mr. R.'s wife and his friends. It is, that since the accident he is unable to judge correctly of the distance of objects in a *lateral* direction, though he appears to be able to do so when looking straight forward. Thus, when driving in the middle of a straight road, he always imagines that the carriage is in danger of running into the ditch or hedge on the *near* side.

"The opinion I gave was, that the patient had sustained an injury of the spinal cord, that the base of the brain was also to some extent, though probably secondarily, involved. That chronic subacute meningitis of the spine and base of the cranium had taken place. That it was not probable that he would ever completely recover, and that it was even doubtful whether, as the disease had up to the present time been progressive, it might not continue to be so, and terminate in incurable disorganization of the nervous centres. The patient was seen by Sir Charles Harding and Mr. Carden, who took a similarly unfavorable view of his present state and probable future." An action was brought against the company on whose line the patient was injured, the statement of the plaintiff's medical advisers being accepted. The jury awarded £5775.

This and the preceding cases illustrate with great accuracy the phenomena that present themselves as effects of severe and slight injuries to the spine, and will serve as a guide to correct diagnosis in all occurrences of a similar nature. The following case is presented to show the interminable duration and persistence

of serious nervous disturbances from slight injury to the spine from other than railway collisions, and is one of great interest, as proving the insidiousness of the phenomena due to those slight falls and blows that occur in everyday life.

CASE IV.—"Miss B——, aged 26, of moderately healthy appearance, good constitution, and with no discernible hereditary tendency to disease of any kind. Digestion was good, and the uterine functions were well performed; she had no convulsions or fits during childhood, or disease of any kind save the one from which she now suffers.

"When about 18 months old, she fell from her cot while sleeping and injured the cervical spine. From that time to the present she has suffered from a continuous and remarkable train of nervous phenomena. These were aggravated about the period of puberty, and at the age of 17 were still further increased in consequence of her falling over a stile backwards. She has never had hysteria in any of its ordinary forms, paralysis, epilepsy, or convulsive attacks of any kind.

"On examining the spine it was found straight and the body well formed, but a distinct projection backwards of the spinous processes of the fifth and sixth cervical vertebræ was discerned. She complained of a constant pressure and pain of a grating and grinding character in this region, as if the bones were in contact with one another. There is no evidence of abscess, or of any distinct trouble in or around the tender vertebræ, and the laryngoscope reveals nothing abnormal from within the throat. From the pharynx, a peculiar sense of uneasiness diverges, spreading over the whole of the body and limbs, producing nervous sensations of the most distressing character. These sensations, which consist of tingling and painful feelings, *prevent her sitting still or lying down quietly for any length of time, always feeling better when in motion.* She cannot sleep for more than an hour or two at a time, and is conscious of her sufferings during her sleep. Her motive power has never been impaired, the distress is confined to sensation alone. She can walk well and stand, and scarcely ever sits, but cannot turn suddenly without becoming giddy, with the fear of falling; she can walk well when supported by another, or when anything is near her. Then she can walk along a street,

guided by the area railings, but when she comes to an open space, as a square or crossing, she is lost, and requires to be guided or she would fall; she cannot bear the sensation of having a space around her, and would then fall if not supported. She has increasing loud noises in her head, which she compares to 'gravel stones' rolling through it, and are so loud she imagines others must hear them; her hearing is good, sight unimpaired, but she sees the circulation of the blood in her own eyes, the corpuscles spinning around in convolutions, and often colored. There is no perversion of smell or taste, and the hands are always cold, even in summer. Her morbid sensations are referred to the seat of excurvation in the cervical vertebræ, and are doubtless attributable to some chronic inflammation of the cord, producing thickening of the coverings and pressure upon its sensory rather than its motor portions."

This is a case of exceeding great interest, and I believe were a case of the kind placed under the charge of an intelligent and careful homœopathic practitioner, much could be accomplished looking to the patient's recovery or at least improvement.

One of the most remarkable circumstances connected with spinal injuries is the disproportion that exists between the apparently trifling accident that the patient has sustained and the real and serious trouble that has occurred. The slightest kind of spinal injury will often produce the most alarming symptoms of serious mischef to the cord; on the other hand a severe concussion or injury, which may even terminate in a fracture of some of the long bones, or other damage done to the limbs, produces little or no after-trouble, so far as the spine is concerned, unless the spine has also been seriously struck. Mr. Erichsen gives a familiar illustration of this from an injury to a watch by falling on the ground. He says, "A watchmaker once told me that if the glass was broken, the works were rarely damaged; if the glass escapes unbroken, the jar of the fall will usually be found to have stopped the movement." How these jars, shakes, shocks, or concussions of the spine, he remarks, "directly influence its action, I cannot say with certainty. We do not know how it is that when a magnet is struck a heavy blow with a hammer, the magnetic force is jarred, shaken, or concussed out

of the horseshoe, but we know that it is so, and that the iron has lost its magnetic power. So if the spine is badly jarred, shaken, or concussed by a blow or shock of any kind, communicated to the body, we find that the nervous force is, to a certain extent, shaken out of the man, and that he has in some way lost nervous power. What immediate change, if any, has taken place in the nervous structure to occasion that effect, we no more know than what change happens to a magnet when struck; but we know that a change has taken place in the action of the nervous system, just as we do in the action of the iron by the change that is induced in the loss of its magnetic force."

One of the most remarkable occurrences connected with this class of injuries is that the patient is scarcely conscious that he has sustained an injury of any serious import. He feels that he has been violently shaken or jolted, may feel somewhat giddy and confused, but as he finds no bones broken, no visible damage to the soft structures, he *forgets himself* in his effort to render assistance to his fellow-passenger in distress, when the result may show that his condition in the future is worse than those he essayed to assist.

In a few hours, when perhaps the "excitement of the thing" has worn off, and he settles down to a thoughtful contemplation of himself, he begins to manifest symptoms of nervous disturbance. There is an inability to sleep, he shows considerable excitement, and probably bursts into tears or laughs immoderately. These sensations increase during the next day, and finally the patient complains of a sense of soreness and being bruised all over, but more especially about the loins, thighs, and shoulders, which in a few days incapacitates him from business, when the advice of a medical man is invoked.

The period when the more aggravated, serious, and persistent symptoms of spinal trouble are developed, vary according to circumstances. In certain cases they take place suddenly, in others they are procrastinated for weeks, and perhaps months, before they assume anything akin to seriousness, although, in the meantime, the patient may lose both mental and physical activity, and appear dejected and out of spirits, or even irritable and easily excited. These symptoms continue progressively. In

the early stages the chief complaint is a sensation of lassitude, weariness, and inability for mental and physical exertions. Then follow the pains, tingling, and numbness of the limbs; next the fixed rigidity and pain in the spine. Then the mental confusion and signs of cerebral disturbance, and the affection of the organs of sense, the loss of motor power and the peculiarity of gait hereafter described.

Countenance.—The countenance assumes a pallid, livid, and careworn and anxious expression, the patient looking older than he really is, or than he did before the accident.

Memory.—The memory is defective, as has been shown in Case No. 1, and if not treated successfully, it continues to grow worse from time to time.

Thoughts.—The thoughts are more or less confused; the patient will sometimes break off in the middle of a sentence, and begin upon some new idea; or he will, in uttering a sentence, use a wrong word, which entirely destroys its meaning; he cannot concentrate his ideas upon any subject so as to keep up a continued line of argument; oftentimes, when he attempts to read, he is obliged to put away the paper.

Business Aptitude.—The desire to attend to his business is lost, and he takes no interest in those matters which most engaged his time and attention before the injury. Whether this is owing to impairment of the memory, confusion of thought, and inability to concentrate his mind upon any given subject, it is impossible to say.

Temper.—The temper of the patient is changed for the worse, fretfulness, irritability, and sometimes moroseness, taking complete possession of him, which is difficult for those about him to control.

Sleep.—The sleep of these patients is disturbed, broken, and restless, oftentimes waking suddenly, as if from fright; the dreams are unpleasant, distressing, and mostly of the horrible kind.

Head.—The temperature of the head is usually normal while the functions of the system are properly carried on; at times it will be hot, when pain, tension, weight, and throbbing will be experienced; occasionally complaint will be made of loud and

continuous noises, varying in intensity at different periods of the day. When once they occur, it is difficult for the patient to rid himself of them, which produces great distress and disquietude of mind. These noises are described as roaring, ringing, rushing, sawing, rumbling, and thundering and grating.

Vision.—Sight is always more or less impaired; in some cases there will be double vision, while in others strabismus of greater or less severity. In some the focal length seems to be lengthened; in others it is shortened. Reading cannot be kept up, except for a short time; if continued too long, the letters will seem to run into each other. The eyes are extremely sensitive to light, the patient seeking the darkest portion of the room. At times the eyes become photophobic, and the brows will become contracted and drawn over the eyes, as if to shade them from the light; often one eye alone is affected, the other appearing normal. The circulation in the bottom of the eye is visible to some patients; sparks, spectre rings, stars, and flashes are complained of.

Hearing.—The sense of hearing is more or less disturbed; the auditory nerve is frequently oversensitive; at other times it is duller than natural. Noises are heard in the head, such as I have heretofore described under complaints of the head. Sudden and loud noises produce great distress, and the fall of a plate, or the rattling of a carriage or wagon, is often the cause of great pain and irritability.

Taste and smell are rarely influenced, though cases have been reported where the smell was so perverted that the patient described most disagreeable smells while inhaling the perfume of the sweetest flowers.

Touch.—This sense is always impaired; the patient is unable to exercise his fingers properly, and cannot button his dress or use a pin, and is unable to distinguish the difference between a piece of cloth and one of velvet. The sense of weight is lost, and he cannot distinguish between a dime or an eagle while held in the fingers.

Speech.—It is rare that speech is affected, though instances are recorded of stammering and stuttering to such an extent as to become painful to the attendants.

Attitude.—The position of the body is usually stiff and unbending; patients hold themselves very erect, and walk straight forward, as if afraid of falling if inclined to either side. The grace and suppleness of the spine is lost; the head is kept straight and unyielding; motion backward, forward, or laterally is difficult, painful, and sometimes impossible. If he stoops to pick up anything, he will fall upon the knee, and thus attain the object. To attempt to rise from the horizontal position without the use of his hands he finds impossible.

Condition of Spine.—The sensibility of the spine is greatly exalted, as will be evidenced by percussion, pressure, and the application of the hot sponge. This sensibility will be found in spots along the spine occupying the cervical, dorsal, and lumbar portions, which includes two or three of the spinal processes; flexion and rotation are impaired. The spine moves as a whole rather than as a flexible column, which gives it the appearance of stiffness and solidity. The motion of the head is variously executed, sometimes stiffly, at others painfully.

The *gait* of the patient is peculiar; he walks more or less unsteadily; generally employs a cane, or sustains his weight by leaning upon something near him. He walks in a straddling manner, with his feet wide apart, as if to increase the basis of support. One leg being weaker than the other, gives him a tottering gait. The heel drags rather than the toe, and is apt to touch the floor first. The impaired limb gives way when attempting to stand upon it. Walking is limited, and riding gives pain; in ascending and descending flights of stairs, the greatest amount of difficulty is experienced, the patient going up with less difficulty than coming down.

Motion and *sensation* are affected, sometimes one more than the other in the same limb; at other times both may be affected to an equal amount; sensation and motion may be seriously impaired in one limb, or sensation in the one and motion in the other. Paralysis in these cases is seldom complete at the first, but may become so after a lapse of considerable time.

Loss of Motion.—The loss of motor power is more marked in the extensors than in the flexors of the legs, the extensor of the great toe being especially prone to suffer. The upper extremity

is less frequently affected with loss of motive power than the lower, except, perhaps, the muscle of the ball of the thumb, or the flexors of the fingers. This loss of motor power can be readily ascertained by the force of the patient's grasp either of the surgeon's hand or by means of the dynamometer.

The application of electro-magnetism to the limbs, in order to compare the amount of irritability in each, is a good test, as it is not under the influence of the patient's will, and therefore gives an accurate estimate of the loss of muscular contractility whenever applied. The limbs gradually waste, the muscles soften, and the intermuscular spaces become more distinct as the disease continues. The body loses weight, but singular to say the digestive organs preserve their normal activity, which is considered of serious import, and denotes progressive disease in the nervous system. On the contrary, increase and weight of the body is looked upon as a favorable omen, and denotes that the ravages of the disease have been checked.

Concussion of the spine may be the result not only of *direct* violence to its structure, as by a blow or other injury, as I have heretofore shown, but it may be produced by *indirect* injury, through the influence of powerful narcotics or other poisons, which man's cultivated and perverted taste has made almost a fancied necessity of life.

Take, for instance, the many cases of neuralgia, paralysis, hemiplegia, paraplegia, that are almost of daily occurrence, and for which there seems to be no satisfactory explanation as to the causes producing them, and if we clearly examine into the habits of the patient, it will be found that they were addicted to the habitual use of tobacco or other nerve-poison.

It is true as all authorities admit, that an overdose of tobacco "gives rise to confusion of the head, vertigo, stupor, faintness, nausea, vomiting, and general depression of the nervous and circulatory functions, which, if increased, eventuates in alarming and even fatal prostration;" then it is equally certain that its continued use, by accumulation in the system, must operate *largely* in *indirectly* affecting the brain and spine, and disarranging in a corresponding degree the moto-sensory nerves of the brain and cord, and Mr. Brodie proved that by actual experi-

ment that tobacco affects the heart, *through the brain and spinal cord*, for in a decapitated animal in which the circulation was sustained by artificial respiration, the administration of tobacco did not diminish the action of the heart, while on the contrary the heart almost ceased to beat when the poison was given to a healthy animal. When employed in excess, it impairs digestion, produces emaciation and general debility, and lays the foundation of serious nervous disorder, say Wood and Bache. Dr. Chapman says he has met with several instances of mental disorder closely resembling delirium tremens, which resulted from its abuse. Dr. Kirkbride refers to four cases of insanity the origin of which was ascribed to the abuse of tobacco. I might, in this manner, give scores of authorities to prove that the abuse of tobacco has given rise to injurious results. If such are the *immediate* consequences of large doses of this poison, it surely cannot be denied that the *continuous and daily use* of such a poison will produce more or less disturbance of the brain and spinal cord, and finally eventuate in the nervous diseases of which I have spoken.

I have heard the following remarks made by the advocates of tobacco, "Here is a man eighty years old, who has been addicted to the use of tobacco for upwards of sixty years, and yet we see in him no evidence of nerve tension." True, my dear sir, says his opponent, but this only argues a negative; in other words this man has such a splendid constitution that he not only has withstood the influence of tobacco as a poison, but all other injurious influences surrounding him for "lo, these many years." In fact, because one man does not suffer from the effects of breathing a malarious atmosphere, it is no evidence against the fact that malaria does produce injurious results. Just so with tobacco; a great number of men will *seem* to use it with impunity, but we *do* know that it does injure, and has injured others. My argument is to show that of the numbers that are injured by it, it is because of its action indirectly on the brain and spinal cord, and that some of the results of these influences are the nervous disorders I haved named.

If we look into the secret history of these nerve-lesions occurring in tobacco users, it will appear that they have been caused

by this nerve-destroying agent, with just as much certainty as that paralysis and its kindred affections follow the effect of violence done the brain or spinal cord. These maladies have become so frequent of late years, and so many men holding responsible and creditable positions in the social scale have been stricken down with paralysis in some of its forms, whose daily lives have been regarded as the very paragon of excellence, that we are forced to inquire into the causes producing them. If we look beyond the narrow circle of our tobacco-blunted vision and inquire into the insidious and progressive deterioration of nerve-force, as it has crept over the sufferer from month to month and year to year, we will there find that the use of tobacco in one of its many forms has been the parent of all the mischief, and this has been effected through indirect violence to the brain and spinal cord. The absence of all evidence of outward and direct physical injury, the obscurity of the early symptoms, their very insidious character, the slowly progressive development of nervous disorders, the derangement of functions, and finally the very giving way of motive power, forms a photographic view of the indirect effects of tobacco on the human organism.

In unravelling the complex series of phenomena that are present in these cases, and to fix the "casus belli" just where it belongs, in separating consequential symptoms from those which are real, much diagnostic skill and common-sense judgment, with intimate knowledge of the tragical effects of poisons upon the human system, will be required.

It is with the view of interesting the minds of my professional brethren in an examination of the poisonous effects of tobacco upon the human system, that I have alluded to it in this connection.

The discrepancy of opinion as to the relations between apparent cause and alleged effect, as to the significance and value of particular symptoms, as to the probable result in any given case, will always exist, and more especially where the assigned cause of the evil appears to be trivial, when the phenomena develop themselves so slowly and so insidiously that it is often difficult to establish a connecting link between them and the causes producing them.

Every practitioner will be guided in his estimate of the importance of such symptoms, and of the probable future of his patient, by his own individual experience and preconceived views of these and similar cases. Such cases differ but little from others of daily occurrence in medical and surgical practice, and we often witness discrepancies of opinion in obscure medical cases of every kind. Surgical operations are performed when the facts revealed by the scalpel, if known beforehand, would have warned the surgeon from taking so grave a responsibility.

Treatment of Concussion.—If we look over the allopathic authorities that have expanded so largely upon the diagnosis, prognosis, etiology, and pathology of this class of diseases, we are forcibly impressed with the remarkable brevity displayed when they approach the *treatment* of these injuries; which probably arises from the fact that their curative means are either disproportionately small as compared with their literature of these disorders, or that their literature is disproportionately large as compared with their curative means.

It reminds me of an anecdote once told of the celebrated Prof. Sweat, when treating a case of capillary bronchitis in the New York City Hospital, and which terminated fatally. "Gentlemen," says he, "we have failed in the treatment, but we have not failed in the diagnosis and pathology."

The important consideration of treatment, especially in concussions of the spine, is to overcome first the shock of injury, and to re-establish the depressed energies of the circulatory and nervous systems; to effect this, it is necessary that the patient be placed in a complete and absolute state of rest, and this cannot be done in any better manner than to place him prone on a couch. The advantage of this is, that in the prone position the spine becomes the highest part of the body, and on this account is not so liable to passive venous congestion and determination of blood, as when the patient lies on his back, which position naturally favors the development of these conditions.

Again, in the prone position we escape the formation of bedsores and sloughing of the soft parts over the sacrum and nates by continuous compression; *pressure upon the back* is avoided, which is an advantage in those cases of undue sensitiveness or

where the sufferer is disposed to paraplegia; the advantage of this position, also, is the opportunity it presents for local applications and topical treatment to the spine.

If the shock is light, a few words of encouragement and cheer will often have a most salutary effect; in addition to this, a little wine or other stimulating fluid, or perhaps the application of hartshorn or spirits of ammonia to the nose, or given internally, will assist to bring about the desired reaction. If the shock is severe and the result of a violent injury, the patient should be placed in the prone position, and the injured portion arranged in the most comfortable manner; warm blankets should be spread over the patient, hot applications applied to the extremities, friction briskly imparted to the hands and feet, and provided the insensibility is not complete, the internal use of *Arnica, Aconite, Belladonna, Camphor, Cicuta, Cimicifuga, Hyoscyamus, Hypericum perfoliatum, Opium, Stramonium, Rhus toxicodendron,* and *Veratrum album* according to their indications.

If sensibility is entirely gone, drinks should be prohibited, and spirits of Ammonia be applied to the nostrils, and a stimulating enema administered. After reaction shall have been partially restored, *Aconite* should be given internally, and a lotion of *Arnica* applied to the injured portion, of the strength of one teaspoonful of the tincture to one pint of tepid water, renewing the application continually as long as the condition of the case demands it. If *active* inflammation sets in, *Aconite* becomes our chief remedy, and *Belladonna* will be equally demanded in case of congestion of any internal organs. If the injury has been attended with considerable loss of blood, the vital powers in consequence being more or less impaired, *China* will be of great service, either alone or in alternation with either *Arnica* or *Belladonna. Phosphorus, Calendula* and *Gelseminum* will be found of benefit in those cases where the indications point to the use of either of these remedies.

The popular administration of stimulants, so injudiciously given in every case of concussion and in every stage of the disorder, cannot be too strongly condemned, as in almost every instance they interfere with the conservative powers of the system by exciting an undue circulation, and perhaps congestion

of the vital organs, the surgeon being confounded oftentimes in distinguishing between the actual mischief produced by the injury and the stimulating effects of the remedy.

If insensibility is complete all drinks should be prohibited, as the act of swallowing will produce strangulation and perhaps the death of the patient. In such cases the Spirits of ammonia or the ordinary smelling-salts should be applied to the nostrils, and a stimulating enema thrown into the rectum. As soon as the patient is able to swallow, Arnica should be given internally every ten, fifteen, or thirty minutes, according to the severity of the shock, until reaction has been completely established. The early administration of this remedy, if the injury be not too severe, will not only prevent many of the evil consequences that may result, but by its controlling influence over the cerebral vessels, extravasation of blood within the cavity of the cranium will be largely prevented. It is particularly adapted to sanguine plethoric persons, especially when disposed to cerebral congestions following concussion of the brain. The inflammatory mischief that so uniformly accompanies the administration of stimulants under allopathic medication, need not deter the homœopathic surgeon from pronouncing often a favorable prognosis when the reaction has been brought about by the agents advised. The injurious effects of stimulants upon a depressed nervous organism, driving it from the verge of prostration, as it were, up to the highest grade of vascular excitement, is, I believe, the cause of the serious troubles that so frequently follow the adoption of this treatment. Hence ensue, under allopathic practice, the many dangerous complications that are unknown to those patients who employ homœopathic medication in these injuries.

If, after reaction has been established, the circulation is too much aroused, *Aconite* or *Gelseminum* becomes our chief reliance. If impairment of the mental faculties remain after the administration of the above, *Belladonna*, *Opium*, *Cicuta* or *Rhus* may be employed. If Arnica has not already been given, this same condition existing, it then becomes a remedy of great efficacy.

If the shock has been attended with great loss of blood, *China* will be demanded. Dr. J. C. Morgan, Professor of Surgery in

the Hahnemann Medical College of Philadelphia, highly recommends the use of *Camphor* in concussion following injury, the remedy affording relief, as he remarks, in a few minutes.

In those cases where tissues of organic life were especially and severely involved, *Ammonium caust.* has produced marked good effects. In coldness of the extremities, with pallor of the countenance, distortion of the features and rigidity of the muscles, *Cicuta* is indicated. *Veratrum* where there is coldness of the extremities, paleness of the face, distortion of features, relaxed muscles and imperceptible breathing.

Opium will be beneficial to restore the reactive power of the organism and is especially indicated, in a comatose state accompanied with stertorous breathing, red, bloated countenance, with frequent quivering of the lips, full, slow pulse and profuse sweat. It is said to act more powerfully when administered by the rectum, in the form of an injection, than by the mouth. If the disease passes the active stage and assumes a chronic form, the same general plan of treatment as heretofore recommended is to be pursued, modified, of course, by the intensity of the symptoms, and persevered in until all danger has passed, the patient being kept all the while in a state of complete quietude.

Subacute encephalitis, which occasionally follows injuries of the head, even at a remote period from their infliction, is a most dangerous symptom, and is prone to terminate in a loss or impairment of sense, in diminution of intellectual power, or in paralysis. In such cases the disease must be treated in accordance with the totality of symptoms presented, it being impossible in this connection to do more than to recommend the remedies best adapted to the cure of the condition involved. The remedies most to be relied upon are *Arnica, Aconite, Arsenic, Apis mel., Belladonna, Bryonia, Cimicifuga, Cicuta, Gelseminum, Ignatia, Nux vom., Hyoscyamus, Opium, Stramonium, Zincum* and *Veratrum viride*, which may be selected in accordance with their indications, a few of which are annexed.

Aconite.—Full and bounding pulse; increased heat of the body and face; anxiety and fear of death; palpitation of the heart; anguish; loud moaning; oppressed breathing; great restlessness.

Arnica mon.—Heaviness in all the limbs; painful lameness

of the joints; general sinking of strength; quarrelsome and peevish, with a tendency to start; stitches under the false ribs, arresting the breath; sharp thrusts through the abdomen; frequent small stools, consisting only of slime; tenesmus of the neck of the bladder, with stitches in the urethra; stitching pain in one side of the chest, with a sharp cough, which increases the pain; tingling in the vertebral column; pricking in the knee when touched. Worse in the morning and at night; also on awakening, when coughing, when moving, from talking, and on being touched. Better when lying down and from rubbing. Left side.

Belladonna.—When there is hot and red face, dilated pupils, sparkling eyes, anguish in the præcordial region, melancholy, depression of spirits, rage, biting at persons, dryness of the fauces, violent redness of the face, symptoms aggravated by movement of the head, intense cramp pain in the small of the back, cramp pain in the os coccyx, he can only sit for a short time; lancinations from without inwards in the vertebræ, resembling stabs with a knife; pain as if from a sprain in the right side of the back and in the spinal column; cramplike oppressive sensation in the middle of the spinal column; paroxysms of stiffness of all the limbs or of single limbs; fainting fits, sometimes resembling lethargy; furious delirium, with protruded eyes and dilated pupils; paralysis of the sphincter ani; involuntary passage of fæces; constipation or diarrhœa; copious and frequent emission of pale, clear, watery urine; labored, irregular breathing; tremor of the heart; perceptible throbbing of the blood-vessels; tremor of the knees. Worse in the afternoon, evening, and at night; also during inspiration, when coughing, or shutting the eyes from light in general, and when moving. Better from opening the eyes, when lying down and from warmth. Right side.

Bryonia.—Feeling as if the brain would protrude through the cranium; great irritability and fits of anger; dread of the future; cold sweats on the forehead and head; nausea and fainting in the erect posture; bloated and hot face; pains increased by motion.

Bryonia alba.—The strength disappears on making the least effort; out of humor and irritable; burning in the stomach;

constipation obstinate; hot urine, with burning and cutting previous to the emission; sobbing breathing; stitches in the chest when lying on the back, made worse by every movement; heat in the chest; pricking pain below the right nipple from within outwards; the prickings are only felt after an expiration; drawing down along the back. Worse in the night; also before falling asleep, during inspiration, from cold, when coughing, while lying on the painless side, when moving, from talking, on being touched. Better from cold, from lying on the painful side, and after lying down. Right side.

Cimicifuga.—Great sensitiveness to cold air; continual restlessness; nervous tremors; feeling of dejection; dizziness; vertigo; dulness in the head, and intense pain in the vertex as if a bolt was driven through it; delirium; sighing, followed by mirthfulness; intense pain in the eyeballs.

Gelseminum.—Nervous exhaustion; pulse frequent, soft, weak and fluttering; dull frontal headache; complete loss of muscular power; respiration labored and feeble; nausea and vomiting; great irritability, does not wish to be spoken to; aversion to light, particularly to candlelight; heat in face, with fulness in head and cold feet; stiffness of the jaws, they are locked; pulse slow, accelerated by motion. Worse at night, also on waking.

Hyoscyamus.—Delirium; unconsciousness; convulsions; double sight; red, sparkling eyes; face red; numbness of the hands; involuntary discharge of fæces; subsultus tendinum; spasms, with coldness and diarrhœa; pinching in the abdomen; mucous diarrhœa; exhausting, debilitating diarrhœa; retention of the urine, or paralysis of the bladder; difficulty of breathing, with stitches in the sides of the chest; pain in the back; stiffness and rigidity of the cervical muscles; coldness and swelling of the feet. Worse in the evening; also when looking at shining objects and when vomiting.

Opium.—Coma; stertorous breathing; open eyes; dilated pupils; slow pulse; red face; slow, irregular breathing; sinking of lower jaw; hot sweat on the head; foaming mouth; convulsed extremities; numbness and insensibility of the limbs; trembling convulsions or spasmodic jerkings of the limbs; rigidity of the body; fretfulness and tendency to start; stupor;

constrictive pain in the stomach; nausea and inclination to vomit; costiveness; paralysis of the intestines; sometimes involuntary stools; suppression of urine; stertorous respiration; irregular breathing; drawing lancinating in the back; weakness and violent itching of the lower limbs; numbness and swelling of the feet.

Stramonium.—Unconscious and senseless; loss of sight and hearing; face red and tinged with blood; convulsive motions of the head; wild, stupid expression; great thirst; loss of the special senses; loss of voluntary motion; stiffness of the whole body; paralysis of the lower limbs, bladder, and intestines; frightful convulsions at the sight of a candle; convulsions on looking at a bright light; anxiety about the pit of the stomach; rumbling in the abdomen; drawing pain in the small of the back.

Veratrum.—Sense of weight; fulness and distension in the head; intense headache; throbbing of the arteries; stupefaction; nausea; vomiting; tingling numbness in the limbs; mental confusion; loss of memory.

Veratrum album.—Paralytic weakness of the limbs, as after fatigue; anxiety; vomiting of the ingesta, with green mucus; vomiting, followed by extreme weakness; violent pressure in the pit of the stomach; diarrhœa, with great exhaustion; aching pain under the sternum; excessive anguish, arresting the breathing; palpitation of the heart, with anxiety and hurried, audible breathing; pain and stiffness along the whole of the back; painful heaviness of the legs, as if from extreme fatigue; icy coldness of the feet.

COMPRESSION OF THE BRAIN.—It is hardly necessary for me to enter into a comparative analysis of the symptoms of compression of the brain, as contradistinguished from those of concussion, which I have endeavored to describe so fully in the preceding portion of my essay. The meaning of the term, as generally understood, is an injury done the cerebral substance by some eccentric force, by the operation of which the natural volume of the brain is not only compressed, but its functions are interfered with. This may be produced by a variety of causes, which I have endeavored to classify under *four* distinctive heads.

1st. *Compression from extravasated blood.*
2d. *Compression from depressed bone.*
3d. *Compression from effused pus.*
4th. *Compression from the presence of a foreign body.*

The symptoms following the existence of either one of these causes will be variously modified, in accordance with the circumstances connected with each. When the compression is dependent upon *depression of bone* the symptoms are developed *immediately* succeeding the injury; if it depends upon *extravasation of blood* some little time elapses between the occurrence of the producing cause and the phenomena, especially when the shock has been great. In compression from *effusion of pus* a longer time intervenes between the occurrence of the injury and the development of the symptoms, the parts having to pass through the inflammatory process, with the symptoms peculiar to that condition.

Symptoms.—The symptoms of compression of the brain are very similar to those of concussion, and it is almost impossible in a practical point of view to discriminate or draw a sharp distinctive boundary between the two, and say when compression begins and concussion terminates.

Professor Gross, in his excellent treatise on the system of surgery, has, however, drawn five theoretical distinctions between these two conditions in his table of "differential diagnosis of concussion and compression," although they may not always be borne out in practice.

CONCUSSION.	COMPRESSION.
The symptoms are immediate, coming on instantly after the infliction of the injury.	An interval of a few minutes, or even of a quarter of an hour, sometimes elapses, especially if the compression be caused by extravasation of blood.
The patient is able to answer questions, although with difficulty, and usually only in monosyllables, as yes or no.	The power of speech is totally abolished; we may halloo in the patient's ear as loudly as possible and yet there will be no response.
Special sensation is still going on, the patient being able to hear, see, smell, taste, and feel.	Special sensation is destroyed.
The respiration is feeble, imperfect, and noiseless.	The respiration is slow, labored, and stertorous, being performed with a peculiar blowing sound.
The pulse is weak, tremulous, intermittent, and preternaturally frequent.	The pulse is labored, soft, irregular, and unnaturally slow, often.

Concussion.	Compression.
There is nausea and sometimes vomiting.	The stomach is quiet and insensible to ordinary impressions, even to emetics.
The bowels are relaxed, and there are sometimes involuntary evacuations.	The bowels are torpid, and with difficulty excited by the action of purgatives.
The power of deglutition is impaired but not abolished.	Deglutition is impossible, and sometimes does not return for several days.
The bladder retains the power of expelling its contents; but sometimes, owing to the weakness of its sphincter, the water flows off involuntarily.	The bladder is paralyzed, and therefore incapable of relieving itself, the surgeon being obliged to use the catheter.
The voluntary muscles, although much weakened, are still able to contract, there being no paralysis.	There is always paralysis on one side of the body, generally *opposite* to that where the compressing cause is.
The pupils are usually contracted, and somewhat sensible to light; the lids are open and movable.	The pupils are widely dilated and unaffected by light, the lids being closed and immovable.
In concussion the mind is in a state of abeyance; it is weak and confused, not abolished.	In compression the mind is absent, and the patient is comatose.

Compression of the brain, unlike that of concussion, occurs as the result of inflammation within the cranium. If, notwithstanding the previous treatment for concussion, the disease remains unchecked, rigors occur and coma supervenes, conjoined with a certain amount of inflammation the question then before the surgeon is, whether the compression depends upon the formation of purulent deposit within the cavity of the cranium or not. There are no absolute and unequivocal signs indicative of the presence of pus within the cranium, as contradistinguished from the effusion of serum or of puriform lymph on the brain or its membranes. It not unfrequently happens, however, that he can determine by general symptoms and local manifestations, with considerable accuracy, whether the pus lies between the cranium and dura mater, between the layers of the arachnoid, underneath this membrane, between the cerebral convolutions, or deeply situated in the substance of the brain-mass.

For the purposes of treatment, however, it is of little importance to the homœopathic surgeon in what location this purulent matter may have been deposited. The circumstances, symptoms and general history of the case will determine the curative means to be employed. The remedies appropriate to this con-

dition will be found in the Materia Medica, and it is important that the medicine selected should be *en rapport* with the diseased condition. *Abscess of the brain*, or softening, may follow as remote consequences of injury, and in such cases it appears obscurely and insidiously. The first evidences are occasional headache; general loss of strength and health, impairment of memory or other mental faculties, furred tongue, quick pulse, derangement of the eyes or ears, a sense of coldness or constriction in the scalp with creeping and numbness, are the most frequent evidences of its existence. These symptoms may in time be succeeded by sudden convulsions, coma, or paralysis, from which the patient may recover from time to time under successful homœopathic treatment, but too often the result is fatal.

The mechanical method to be employed in the treatment of compression, is to remove the cause which produces it. If it is owing to a portion of bone being driven in upon the brain substance and impinging upon that tissue, it should be the duty of the surgeon to remove it as soon as possible by trephining the cranium, or otherwise, according to the conditions involved, if it can be done with safety.

If compression is produced by extravasated blood which has been poured out within the membranes of the brain, or between the cranium and dura mater, where it can be more safely reached, it is the duty of the surgeon to make an effort to evacuate the effused blood and secure the bleeding vessel. When it is due to an abscess or the presence of pus, the surgeon should ascertain, if possible, whether the matter lies immediately beneath the internal table, or within the arachnoid sac, on the surface of the brain, and then remove a disk of bone by the trephine; or if the abscess is situated deep in the substance of the brain, or in the lateral ventricles, as will be known by a sense of fluctuation, or deep coma, after the removal of the disk of bone the surgeon should make a free incision through the superimposed tissues, and permit the fluid to escape.

Dr. Detmold, of New York, in a desperate case of this kind, succeeded, by means of repeated incisions, some of them fully an inch and a half in depth, in preserving the life of his

patient for seven weeks. An enormous quantity of pus followed the first operation, the patient immediately recovering his consciousness and power of speech.

The treatment of the various cerebral injuries and the complications that arise, is fraught with no inconsiderable difficulty to the surgeon, in consequence of the indistinctness that marks the existence of these injuries in practice. Wherever the abscess may be situated, even if in the brain-substance itself, there is a chance of recovery for the patient if it is discharged, and little or none if permitted to remain. If recovery follows the operation of perforating the cranium, a process of restitution takes place; and it is possible for the opening in the bone, if it is small, to be entirely closed up by an osseous deposit round its edges. If it be not closed, on account of its too great extent, a process of absorption takes place, by which its rough edge is smoothed and polished off. Again, it occasionally happens that in some injuries of the head necrosis takes place to a greater or less extent, so that the surgeon is compelled to evacuate the contained pus and to cut away the dead portion of bone. It is strenuously advised, however, that this procedure should not be attempted for the mere purpose of performing an operation, as some surgeons cultivate the habit of scalping their patients under all circumstances, hoping to find some excuse for boring their skulls in order "to show off," or gratify an inherent mania for trephining.

Whenever the indications for operation are sufficiently distinct, it should be done solely for the purpose of benefiting the patient, not for any selfish purposes on the part of the surgeon. *Drunkenness*, under certain conditions, may produce such a similarity to concussion or compression, that it is difficult for the surgeon, without instituting a careful examination, aided by the odor of the patient's breath, to distinguish the one state from the other. Either of the two latter conditions, however, may exist in conjunction with drunkenness; in which case, the fact is to be ascertained by waiting sufficiently long for the effects of the liquor to pass away; after which time, if the patient does not rally, it may be safely concluded that some other trouble is present.

The operations that are recommended for the various injuries of the brain resulting in compression belong more especially to the domain of operative surgery. In my article read before the American Institute at its last session at Niagara Falls, 1874, I went over in detail the various surgical procedures required in all "Injuries of the Cranial Arch," to which the reader is referred.

Injuries of the spine terminating in compression are influenced by the same general rules that govern similar operations upon the head. The formation of pus within the cranium is a point of much interest in these cases, and an effort has been made, especially by Pott, to lay down rules by which the existence of suppuration could be accurately determined. Thus it has been said that if during the continuance of encephalitis fits of shivering come on, followed by the gradual supervention of coma, which slowly becomes more and more complete whilst the constitutional symptoms of inflammation do not subside, and if, at the same time, a puffy swelling forms upon the scalp, and the wound, if any, becomes pale and ceases to secrete, the pericranium separating from the bone, which is seen to be yellow and dry, an abscess will have formed under the skull; and further, that in all probability its seat will correspond to these changes in the scalp and pericranium. In traumatic encephalitis, secondary mischief often occurs in some of the thoracic or abdominal viscera, the lungs and liver being especially liable to be thus implicated. In the lungs, more particularly, it not infrequently happens that congestion runs into some low form of pneumonia, and thus terminates the patient's existence.

In the liver, it has long been observed that abscesses are apt to form as a consequence of injuries of the head. These usually occur as one of the more remote consequences of the injury, yet there have been instances of an acute kind. Thus Hennen relates the case of an abscess forming in the liver of a temperate woman, thirty-six hours after the receipt of a blow upon the head. This connection between abscess of the liver and injury of the head is doubtless the result of pyæmia, consequent upon the suppuration of the diploë of the skull, the hepatic abscess being a metastasis of pus, consequent on an inflammation of the veins of the diploë and of the cerebral sinuses.

XI.

DISLOCATIONS OF THE HIP.

By L. H. Willard, M.D., Alleghany, Pa.

It is proposed to treat in this paper of those dislocations of the hip produced by external violence.

To have a proper understanding of the same, and to give the recent theories advanced in regard to their pathology and treatment, I have used the writings of our modern surgeons in the hope of thus affording a comprehensive knowledge of our subject.

Notwithstanding the nature of the hip-joint, with its covering of numerous muscles, ligaments, and tendons, which, by their form and power, all contribute to retain the femur in place, having, also, atmospheric pressure, and a deep cavity in which this bone is placed, the dislocations of this joint occur next in frequency to those of the shoulder. Of four hundred and ninety-one cases mentioned by Holmes as occurring in the London hospitals, three hundred and twenty-one were of the shoulder and thirty-four of the hip, thirty-three of the clavicle, twenty-six of the elbow, twenty of the ankle, seventeen of the thumb, thirteen of the wrist, seven of the fingers, seven of the jaw, six of the knee, four of the radius, two of the patella, and one of the spine.

The numerous positions in which the head of the femur is found in dislocations, make the varieties generally used in surgical nomenclature incomplete, but for convenience of description they give the locality though not the exact position. Thus we have dislocations upon the dorsum ilii; into the ischiatic notch; downward and forward into the foramen thyroideum; upward and forward upon the pubes. The head of the femur

may be found in many intermediate positions, varying according to the amount of violence used and the position in which the femur was at the time of the occurrence.

With this classification all writers concurred until a few years ago, when the true nature of the pathology of these dislocations was still further illustrated by Dr. Bigelow, of Boston, who ascribed the principal barriers to reduction of the femur to be the ilio-femoral ligament and obturator internus muscle, thus differing with the older writers and giving a new classification, which, from the facts adduced by his paper, and observations made by others, give us ground for the belief that it is the most acceptable, and as it seems to me the most plausible of all yet proposed, I shall adopt his classification. It is one which is made in connection with the relation which the femur bears to the abovementioned ligament and tendon when dislocated, and hence, whilst giving us the true pathology, contributes a most important feature of the treatment.

With a view of testing the arguments as advanced by Bigelow in regard to this new arrangement of the different varieties of hip-joint dislocations, we instituted a series of experiments upon the cadaver at the rooms of the Pittsburg Anatomical Club.

First dissecting away all the muscles except the obturator internus with its accompanying gemelli, leaving only this muscle and the ilio-femoral ligament, we placed the head of the femur in the various positions found in dislocations, and observed the relations of the ilio-femoral ligament and obturator internus muscle.

In each and all the cases of so-called regular dislocations (to be described hereafter), the ligament served as the fulcrum whereby the femur could, with ease, be again placed near the acetabulum, and illustrated, in a perfect manner, the symptoms of the different dislocations.

In the everted dorsal, the rupture of the external branch plainly illustrated that seemingly unaccountable symptom of former years, everted toes, when, as is usually the case in dorsal dislocations, they are inverted.

The various intermediate varieties, aside from the four common ones, were more difficult to illustrate, as the absence of

muscular substance prevented them being clearly shown; but any one desirous of seeing how such an important ligament has hitherto been unnoticed in regard to these dislocations, can satisfy himself of the important fact by a careful examination of the dead subject.

It is not assumed in this paper that the ligament and muscle already spoken of are the sole obstacles to reduction of these dislocations. The muscles may exert a degree of force by their contractility and strength, but how much they contribute to the distorted position of the limb in these dislocations has not been proven. All the cases of dislocation in which our patients have been fully under the influence of chloroform, the muscles are flaccid, limp, and lifeless, yet we experience, many times, great difficulty in reduction, so that if muscular resistance be the sole cause, as many writers maintain, why in such cases should we encounter difficulty?

But I leave the discussion of this subject here, to resume it when speaking of the reduction, and shall now examine the main anatomical points concerned in these dislocations.

The first is the ilio-femoral ligament, called the Y-ligament by Bigelow.

We dissected this ligament carefully at the anatomical rooms, the subject being a muscular man, and found that, in producing the different varieties of dislocations, the ligament remained entire. According to Winslow, this ligament arises from the anterior inferior spine of the os ilium, and is inserted into the oblique rough line between the tuberosity and lesser trochanter; it is likewise strengthened by a bundle of fibres, connected to the passage of the tendon of the iliac muscle and to the inferior portion of the oblique rough line. The disposition of the ligamentous fibres of which these two thick portions are composed, forms a sort of triangle with the oblique rough line which terminates the base of the neck. Bigelow also observes that the Webers describe the ligament as triangular, laying stress upon its thickness, which, as they assert, is greater than that of the ligament of the patella or the tendo Achillis, and conclude thus: "With this great strength, we should expect that every other part of

the capsule would be ruptured before this ligament, and that even the bone itself would first yield."

The capsule of the hip is stronger in front, or in that portion composing the Y-ligament, but behind and inside of this ligament it is so thin as to resemble wet bladder. In this position the thyroid dislocation takes place; outside and behind the Y-ligament, where dorsal dislocations occur, the capsule is firm, and by its strength limits adduction and rotation inward. Bigelow mentions a fasciculus from the tuber ischii at its upper part to the upper part of the trochanter behind, arresting flexion and motion.

The ligamentum teres is always ruptured in dislocations resulting from violence, and hence requires no notice.

The obturator internus muscle, identified by Bigelow with all those dislocations commonly called ischiatic, but by him called dorsal below the tendon, arises within the pelvis, and emerges from the pelvic cavity at a point several inches behind the great trochanter, into the back and upper part of which it is inserted. It is a muscle of great strength, and that portion of the capsule which lies beneath the tendon is also very strong, so that their fibres mutually reinforce each other. By its contraction the muscle draws the trochanter backward, everting the thigh when straight, and abducting it when flexed.

The other muscles of the thigh not bearing important relations to these dislocations, we omit their description for the sake of brevity.

In addition to the structures already spoken of, it is well to examine the relations which the head of the femur bears to the pelvis when in the normal condition, for by so doing we obtain light in an otherwise difficult diagnosis. Cases of fracture of the neck, either within or without the capsule, are sometimes perplexing; especially is this so when there is eversion of the toes, which, as will be shown hereafter, is common to both dorsal dislocation, with rupture of the external branch of the Y-ligament, and fracture of the neck of the femur.

The measurements, taken when the femur is in the acetabulum or in a normal position, are as follows: "The trochanter reaches to a level of within half an inch of the upper surface of the head

of the bone, and is a little higher posteriorly, toward the sacrum, than in front. From the centre of the head to the centre of the trochanter, is two inches and a half. From the centre of the anterior superior spine of the ilium to the middle of the trochanter major, in the normal condition of the joint while at rest, is four inches and a half. The trochanter should project beyond the anterior superior spine in a transverse direction, to the extent of about one inch and three-quarters. The centre of the obturator foramen is two inches from the centre of the head of the bone. If the bone were forced but a little obliquely upward, it would lie on the body of the os pubis, and an inch lower on the descending ramus. The distance from the centre of the bone, when in its socket, to the tuberosity of the ilium, is three inches and a half. That from the posterior margin of the acetabulum to the edge of the ischiatic notch, is one inch and a half."*

These measurements are mentioned here, but shall not be again referred to unless for particular dislocations, but the recollection of the same and their relations to an injured hip may, I hope, not be considered out of place.

Reduction of Dislocations in General.—When Sir A. Cooper's work on dislocations and fractures made its appearance in the year 1822, almost all English surgeons recognized it as the standard, and have followed its directions, with but few modifications, down to the present time, and although the treatment of dislocations by flexion is not entirely of recent origin, yet in his work the great reliance was upon extension and counterextension, by means of pulleys.

So confident was he that such means would be successful, that, in speaking of dislocations upon the dorsum ilii he says the plan as proposed by himself (meaning the pulleys), has rarely failed even under the most disadvantageous circumstances.†

It is not surprising that a writer like Sir Astley Cooper, with a reputation so extensive, should have left his imprint upon his successors, and that they should cling so tenaciously to his doctrine.

If, however, the theory be correct that the action of muscles

* Skey's Operative Surgery, p. 108. † Sir A. Cooper, p. 83.

and bony prominences prevented the return of the bone to its place in the acetabulum, then pulleys would be one of the proper means of reduction.

This theory of muscular resistance was also adopted and strongly advocated by Skey* with utter repudiation of the flexion method. He says: "Surgeons often take credit to themselves for reducing the bone by manœuvres, such as rotating the femur inward, after extension of the limb, for the purpose of raising the head of the bone into its socket. The immediate act of reduction is effected by the muscles, and by them alone. Remove the obstacles, bring the bone downward, and the socket will receive it with avidity by the agency of its own muscles, which, it would appear, are more powerful in a good than in a bad cause, and which now contend more successfully against the extending force employed, even at its highest degree of traction. The occasional occurrence of difficulty from the obstruction of a muscle or tendon which has become twisted from its position and has prevented the return of the head of the dislocated bone into its socket, is an exception, and an infrequent one, to the above rule; and it cannot be denied that success does not invariably attend the best-made efforts at reduction, and that the obscure and mysterious cause of this difficulty remains forever unsolved, however perfect may be our knowledge of the anatomy of the parts involved in the dislocation. In dislocations of the femur on the dorsum ilii, we do not attempt to draw the bone in a direct line with the acetabulum, but we carry it below, round its back and elevated margin, and no sooner does it reach the lower part of the rim, which is much less prominent than the upper and back part, than the muscles immediately restore it to its socket."

Bigelow claims that Hippocrates was aware of the flexion method as a means of reduction, and quotes from the Sydenham translation of his work, where he says: "In some the thigh is reduced without preparation, with slight extension directed by the hand and with slight movement, and in some the reduction is effected by bending the limb at the joint with gentle shaking."

It seems from this that this method of procedure was neglected

* Skey's Operative Surgery, p. 70.

and allowed to pass into oblivion, for many years elapsed before the same method or movements were revived, and when revived the theory of muscular resistance was still believed, and although great success has attended the flexion method, with the idea that muscles are the great barrier, still of some cases described by Hamilton a number were unsuccessful, and a resort to pulleys reduced them. These failures were owing, as was supposed, to the small opening in the capsular ligament, which would not permit the bone to resume its place in the acetabulum. Such cases can be overcome by enlarging the opening in the capsule by circumduction of the limb. This, according to Bigelow, has been accomplished without detriment to the joint.

It was left for American surgeons to revive the olden method of Hippocrates, which had slumbered for over two thousand years, or since the year 450 B. C.

It is true some cases were reported in England, but until Dr. N. R. Smith, in 1831, published a pamphlet on reduction of dislocations without the aid of pulleys, we did not have any avowed dissertation on this subject. His method, now common to all, is by free flexion, outward rotation, abduction, and extension.

In 1852, Dr. W. W. Reid of Rochester, New York, followed in another paper not differing materially from that of Dr. Smith. His method was by flexing the leg on the thigh, carrying the thigh across the sound limb upward over the pelvis as high as the umbilicus, abducting it and carrying the foot across the opposite sound limb and then extending. These manipulations were for the purpose of relaxing the muscles so that the head of the bone would approach the acetabulum, when, by rotation, abduction and extension it would slip into its place. In this manner reduction by flexion has been accomplished, and is practiced at the present time.

Hamilton recommends that the limb be carried upward and outward in the direction offering the least resistance, and at the time when rotation outward is being performed, he, using the expression of Warthman, says a self-twisting of the thigh occurs which cannot be prevented by fast holding. When this action takes place the reduction is immediately accomplished.

Perhaps the suggestions offered by Bigelow explain the im-

portance of the manipulations more clearly. He says that flexion lies at the foundation of success in all these movements, and that the others are only secondary; that when the thigh is flexed at a right angle with the body, the head of the femur in dorsal dislocation is near the acetabulum, extension, then, in an upright direction will effect reduction, or again instead of extension, rotation may be performed with a like result. The rotary movement winds the Y-ligament about the neck, shortens it, and thus compels the head of the bone to sweep around the socket and approach it.

I would here call attention to the capsular orifice, which, in some cases of dislocation, is so small as not to permit the head of the bone to regain its place. The plan as proposed by Bigelow-under such circumstances is to make the aperture larger. This, he says, can be done by circumduction of the flexed limb outward. By so doing the capsular ligament is lacerated, and the head of the bone moves freely.

This method of Bigelow seems far preferable to that of Reid or Hamilton, who advise incision of the capsule by a narrow bladed knife. By Bigelow's method we have a subcutaneous wound which readily heals.

For an anæsthetic in dislocations I prefer chloroform. It renders the muscles flaccid, and permits all movements of the limb without any outcry from the patient, and with proper care in the administration, I am inclined to the belief that all danger of bad results will be avoided.

Adopting the classification as proposed, we have:

First. The regular dislocations in which one or both branches of the Y-ligament remain unbroken.

1. Dorsal.
2. Dorsal below the tendon (ischiatic notch of Cooper).
3. Thyroid and downward.
   - Obliquely inward on the thyroid foramen, or as far as the perineum.
   - Vertically downward.
   - Obliquely outward as far as the tuberosity.
4. Pubic and subspinous.
5. Anterior oblique.

} Both branches entire.

6. Supra-spinous.
7. Everted dorsal.

} External branch broken.

Second. Irregular dislocations, in which the Y-ligament is wholly ruptured, and whose characteristic signs are therefore uncertain.

Dorsal Dislocations.—Causes. External violence, the force of which is received on the outside of the knee whilst in a flexed condition, at the same time the thigh is extremely adducted with rotation inward. By bearing in mind this position it will be readily seen that the head of the femur is thus forced outward, upward, and backward upon the dorsum. Sometimes when the force is applied when the thigh is in an extremely flexed condition the head of the bone, arrested by the tendon of the obturator internus, either goes above this tendon or below, when it then takes the name of dorsal below the tendon, according to this classification, instead of ischiatic.

Pathology.—The capsule is lacerated more or less extensively, especially the posterior half; the round ligament is ruptured, as well as some of the external rotators; the glutei are pushed up and folded upon themselves; but the ilio-femoral ligament is untorn, and by its integrity fixes the bone in position. This ligament, when examined upon the dead subject where a case of dorsal dislocation has been made, becomes dissected from the rest of the capsule by the force used, and illustrates the signs of this dislocation in a perfect manner.

Great diversity of opinion exists in regard to the pathology of these dislocations. Dr. Gunn,* of Ann Arbor, Michigan, after experiments on the dead body, concludes that the muscles offer no impediment whatever to the reduction, and that the "untorn portion of the capsular ligament, by binding down the head of the dislocated bone, prevents its ready return over the edge of acetabulum to its place in the socket." He, however, specifies no particular portion, but seems to have foreshadowed the idea of Bigelow, who attributes the position of the bone when dislocated to its being fixed by the ilio-femoral ligament, and it seems that in the majority of the autopsies which have been made, we find his views correct, that the ilio-femoral ligament is stretched tense and firm across the neck of the femur binding it

* Hamilton, Fractures and Dislocations, 1871, p. 686.

in place. The case of Dr. Fenner, as recorded by Hamilton,* I think illustrates the fact very plainly. It was of a person who was killed by the bursting of a boiler. The limb was shortened one inch and a half, and the toes turned inward. On raising the gluteus maximus and medius, the naked head of the femur was found lying on the dorsum ilii, with the ligamentum teres hanging to it but partially torn off. Portions of the obturator externus, pyriformis and gemelli were ruptured and lacerated. The capsule was torn through one-half of its extent. Dr. Fenner now proceeded to cut away the muscles, and when all the external muscles about the joint had been removed, the thigh could not be brought down; the iliacus internus and psoas magnus were then divided, which permitted it to descend a little, but the head could not be replaced; the triceps adductor was then severed without effect. The ilio-femoral ligament was found tensely stretched. All the muscles between the pelvis and the thigh were then severed, and still it was impossible to reduce the dislocation; the head of the femur could not be forced back through the rent in the capsule from which it had escaped; and it was not until the opening was enlarged from one-half to three-quarters of an inch, that the reduction was accomplished.

It will be seen by this that the ligament bound the bone in place and retained it, and although all muscular structure was removed, the limb remained in the same position as when dislocated.

Symptoms.—The limb is generally shortened, depending upon the distance and direction of the head of the femur from the acetabulum. To be certain of the amount of shortening an accurate measurement of the distance between the bony prominences, as given in the first part of this paper, will afford a clearer idea, and we will not be so apt to be misled by what may appear to be shortening, which, in reality, may only be flexion. The great toe of the dislocated limb rests upon the instep of the sound one, and the knee then will be resting upon the thigh. This inversion of the knee, according to Bigelow, depends upon the condition of the ilio-femoral ligament, this inversion not

* Hamilton, Fractures and Dislocations, 1871, p. 636.

existing when the outer branch of the Y-ligament is ruptured. In that case the foot will be everted. Flexion can be easily performed and without pain; adduction is difficult, but abduction, owing to the tense condition of the ilio-femoral ligament, is almost impossible. The mobility will depend upon the amount of laceration of the capsule; if the head of the femur has escaped through a small opening the limb will be almost rigid, but after some movements are made, such as circumduction, this rigidity will partly disappear. The head of the bone will be felt upon the dorsum of the ilium, and to make a sure diagnosis, let an assistant circumduct the extended limb slightly, when the head can be felt moving upon the dorsum. The bone being in this unnatural position, the roundness of the hip is gone. In difficult cases the position of the patella will be a most excellent guide, it being inverted if the bone is unreduced; at the same time the foot will resist eversion.

The differential diagnosis between this dislocation and fracture of the neck of the femur is not difficult, with the exception of the everted dorsal variety, which will be mentioned hereafter. In fracture there is eversion of the toes and foot; the heel of the fractured limb approaches the hollow of the instep of the sound one; there is mobility; adduction and abduction can be performed; there is but a small amount of shortening, which is, in fact, the only symptom common to both.

Prognosis.—The prognosis is favorable, the patient soon recovering the use of the limb after it has been reduced, unless the violence which produced the accident has been so great as to injure some of the structures of the joint. When this has been the case, coxalgia has followed, which, however, is rare and almost always attributable to the patient's having a predisposing tendency to such disease. Should, however, injury such as leads to inflammation be received, suppuration and its attendant evils makes the case very serious, but should plastic material be deposited, a free use of the joint soon removes this trouble, and the tendons, ligaments and other structures become sound again. Should the bone be unreduced, an articular facet is formed on the dorsum, which permits a moderate amount of motion. However, in this variety there is no bony prominence to arrest the

head of the bone when weight is added, so that more shortening takes place, and less motion than when the bone is unreduced as in the other common varieties.

Reduction.—Of late years reduction by manipulation has been considered, in this country, the only true way to reduce the dislocated bone, and although, in a few cases, as recorded by Hamilton, it failed, and a resort to pulleys was successful, it does not prove the idea that manipulation is unreliable; rather are we inclined to believe that it was the result of an imperfect understanding of the different movements and of the ligaments which control and prevent the bone from entering the socket. In regard to extension, it would seem to be a method accompanied with much risk to the soft parts, and also danger of fracturing the head of the bone. Sir A. Cooper says there are plenty of cases on record of fatal abscesses arising from violent attempts at the reduction of dislocated hips, and, as his method was by extension, it is fair to attribute these failures to his manner of treatment. On the other hand, there are some cases on record where the bone has been fractured by manipulation, and it seems that most of them have occurred when either abduction or rotation was being made, an error owing apparently to the amount of force used. The Y-ligament, being the fulcrum, keeps the head of the bone near the acetabulum, so that a slight degree of force in rotation or abduction effects reduction. When the manipulation has been imperfectly performed other efforts must be made, at the same time resisting the natural impulse to force the bone in place.

We have already described the method of reducing these dislocations as practiced by Drs. Smith and Reid. Both are similar in many respects. Hamilton says:* "Professor N. Smith regarded the free flexion of the thigh upon the pelvis as a very important part of the compound movement. He believed that it threw the head of the bone downward, behind the acetabulum, where the margin of the cup is less prominent, and over which, therefore, the abductor muscles would drag it with less difficulty into its place.

* Hamilton, Fractures and Dislocations, p. 644.

"The operator may slightly vary these movements, as he increases them, so as to give some degree of rocking motion to the head of the os femoris, which will thereby be disengaged with more facility from its confined situation among the muscles."

In 1851 Dr. W. W. Reid, of Rochester, N. Y., published an account of the method practiced by himself successfully in three cases of dislocation upon the dorsum ilii. His method, as applied to these cases, consisted in "flexing the leg upon the thigh, carrying the thigh over the sound one, upwards over the pelvis as high as the umbilicus, and then abducting and rotating it."*

Gross adopts the method of Reid, and, so far as manipulation is concerned, with a view to the muscles being the chief obstacle to the reduction, it would seem to be a faultless procedure. Hamilton's plan is almost the same, except that he allows the head of the bone to follow its own inclination in this dislocation. He says:† "Seize the foot with one hand, and place the other under the knee; then flex the leg upon the thigh, lifting the knee carefully toward the face of the patient until it meets with some resistance; it must then be moved outward, and slightly rotated in the same direction until resistance is again encountered, when it must be gradually brought downward again to the bed."

All the abovementioned methods are based upon the theory of muscular resistance, and hence the object in flexing the thigh is to relax the muscles; these, being in a relaxed state, allow the head of the bone to glide into its place. When we have on record, however, a few cases in which the above plans have failed, there must be something either in the theory or performance incomplete.

On carefully considering the ilio-femoral ligament which fixes the limb in such positions as we find in this dislocation, we are led to conclude that, by making manipulations with a view of relaxing the ligament, our atttempts at reduction are more successful and less laborious.

Having, then, this ligament as the fulcrum, we can, by manipulation, readily place the bone in close proximity to the acetabulum, when, with either an upward extension, or rotation and abduction, we effect reduction.

* Hamilton, Fractures and Dislocations, p. 647. † Ib. p. 656.

In the first place, when the limb is fixed and the ligament seems to bind the head of the femur to the ilium, allowing but little movement, circumduction of the extended limb widens the aperture in the capsule, and allows a better opportunity for reduction. This laceration produces no serious results, and prevents the bone from becoming buttonholed in the ligament of the joint. That such is sometimes the case, there is but little doubt, nor is there much uncertainty in regard to the laceration of the ligament in almost all cases of dislocation, though without any serious results.

Upon examining the different methods of treatment for this dislocation, that proposed by Bigelow seems to meet all the requirements. Helmuth adopts his views, and Hamilton, in a late edition of his work, concedes to him the honor of at last proving the pathology and treatment of this dislocation in a way which dissipates the uncertainty with which it has previously been surrounded.

The method, to be properly understood, should first be investigated upon the dead subject, when a complete understanding of the different movements and the positions which the head of the bone bears to them is easily obtained, and in this manner we are able to comprehend and fix in the mind the different plans of reduction which I here append.

Bigelow says,* "This dislocation may be equally well reduced by traction or rotation.

"*By Traction.*—1. Lay the patient, when etherized, on his back upon the floor; bend the limb at the knee; flex the thigh upon the abdomen; adduct and rotate it a little inward, to disengage the head of the bone from behind the socket. The Y-ligament is then relaxed.

"If the bone can now be abducted beyond the perpendicular, the capsule and other tissues are probably so torn or relaxed that reduction may be accomplished without much difficulty; the thigh need only be forcibly lifted or jerked towards the ceiling, with a little simultaneous circumduction and rotation outward, to direct the head of the bone toward the socket.

* Bigelow, p. 46.

"2. The surgeon's foot may be placed on the anterior superior spinous process of the ilium, or on the pubes, to keep the pelvis down, while he pulls the flexed knee up. Or, in the same way, while assistants suspend the pelvis a few inches from the floor, by a strip of board passed transversely under the calf near the ham, the surgeon may with his foot thrust the pelvis down into its place.

"3. Flex the thigh, and circumduct it outwards across the abdomen. When it forms a large angle laterally with the trunk, the head of the bone, if it has not snapped into its place, is in or near the thyroid foramen. The rent in the capsule being thus enlarged, restore the thigh to a perpendicular, and proceed as in the last method.

"4. Place the patient face downward on a table, the thigh, flexed at right angles, hanging over its edge, and bear the limb downward, with or without rotation.

"*By Rotation.*—Flex the thigh, and abduct or circumduct it outward, at the same time rotating it outward. Or, as it has been described, 'lift up, bend out, roll out.'"

The most important part of all these flexion methods seems to be at that point where flexion has been made, and the head of the bone is on or near the margin of the acetabulum. If, in this position, the operator, while making abduction and rotation outward, should evert the limb too much, it becomes locked below the socket; and hence, when the limb is extended, the head of the bone slips back on the dorsum. Attention is also drawn by Bigelow* to the position of the thigh; when it cannot be abducted beyond the perpendicular he attributes it to the fact that "the head of the bone has either escaped by a small orifice in the capsule, which is then comparatively sound, or has also passed above the obturator or pyriformis, which are then unbroken, and is suspended just behind the edge of the socket, midway between these muscles and the Y-ligament. In the former case, the luxation may perhaps be reduced by flexion, with abduction and outward rotation; in the latter it is possible, but not easy, to disengage it by traction across the symphysis,

* Bigelow, p. 51.

the bone being lifted by a towel round the thigh at its upper part. If these attempts do not succeed, the obturator muscle and the capsule can be ruptured by outward circumduction of the flexed limb—an expedient also to be resorted to whenever the limb is especially fixed and unyielding—after which the hip may be reduced as usual."

It cannot be denied that occasionally there will be cases where resort to extension and counterextension will be necessary, owing either to the integrity of the small rotators of the hip, or perhaps to some intervening substance, which hinders the bone from entering the acetabulum. When such is the case the old theory of Panteau seems to answer best. He proposed that the limb be extended when in a flexed condition by having the pelvis fixed and the extension made from above. Bigelow uses this manner of reduction in extreme cases, and the apparatus used acts in a manner similar to that plan of reduction where the operator fixes the pelvis by his foot, and makes upward extension by his arm under the flexed knee-joint. A description of the same will not be amiss, as it will perhaps be useful in all dislocations. As described by Bigelow* the method is as follows: "The patient being laid upon his back, the pelvis is secured to the floor by a T-band passing across it laterally in front, between the superior and inferior spinous processes of each side, and vertically over the pubes and perineum. The three extremities, each terminating in a strap and buckle, are fastened to the floor beneath the margin of the pelvis by common dislocation hooks. The entire band, with the exception of its extremities, is cylindrical, about two inches in diameter, well padded, and covered with buckskin. It firmly holds the pelvis by its pressure between the spinous processes on each side and upon the pubes. To apply it the three-pointed hooks are screwed into the floor, one near each trochanter and one near the perineum; the band is then adjusted, and the pelvis buckled to the floor, after which it will be found that the thighs can be freely flexed. A tripod is now erected over the pelvis, consisting of three stiff poles about eight feet high, and held together at the top by a conical leather

* Bigelow, p. 115.

cup, with three short dependent straps and rings from which the pulleys are suspended. It remains only to attach the pulleys to the limb. This is effected by means of a strong right-angled splint of sheet iron, extending nearly from the hip to the ankle, made concave so as to embrace the under surface of the thigh and leg, and padded, within which the limb, flexed at right angles, is confined by bandages or straps. Two iron rings riveted to the splint near the condyles of the femur receive a wooden rod about two feet in length and an inch in diameter, which crosses the ligament of the patella transversely above the head of the tibia; and to this rod, between the rings, the pulleys are attached by a strap or cord. Vertical traction is thus made exactly in the axis of the shaft of the femur.

"Powerful rotation can be made by grasping the extremities of this transverse rod, while another useful movement, called by the French *bascule* or tilt, may be effected by a similar rod in the axis of the leg below the knee, passed through two rings beneath the splint, one near the ham, the other near the heel, beyond which it projects a foot or more to afford a handle. By vertically raising this rod at its extremity we carry the head of the bone from the dorsum or pubes in the direction of the tuberosity. Oblique extension may be made by changing the position of the tripod.

"Although the need of this apparatus may be rare, it will prove occasionally efficient in reducing a luxation of long standing or complicated with fracture. At any rate I cannot believe that the period is remote when longitudinal extension by pulleys to reduce a recent hip luxation will be unheard of."

Dorsal below the Tendon.—Sir A. Cooper classifies this dislocation as being upon the ischiatic notch. In a dissected subject this is hard to produce. The head of the bone approaches the notch, but is inclined more upward, partly on the dorsum, the pyriformis muscle behind and the obturator internus between the head of the femur and the acetabulum. By reference to the plate* in Sir A. Cooper's work it will be seen, comparing it with the skeleton, that the head of the femur is only partly over the

* Sir A. Cooper, p. 60.

upper part of the notch, whilst the greater part lies on the dorsum ilii. I mention this, as most writers have accepted the illustration as the typical one for dislocation into the ischiatic notch, and believing that it is generally understood that the head of the bone is really found, when dislocated, in the ischiatic notch, when, in fact, unless in extreme cases it is only slightly so. For the truth of the assertion here made examine the illustration mentioned, and by dissection ascertain if this dislocation is not in reality a variety of the dorsal.

Bigelow gives the name of dorsal below the tendon, because in some instances (very many, he thinks) the head of the bone lies below and behind the obturator tendon.

Cause.—The causes which produce this dislocation are really the same as those which produce the dorsal; the fall of a heavy weight upon the back and pelvis when the thigh is nearly or quite at a right angle with the body, or the application of force when the body is bent forward upon the thigh, in which position, if the knee be pressed inward, the head of the bone is thrown behind the acetabulum.

Pathology.—The pathology of this dislocation varies. It seems to depend upon the course which the head of the bone takes when leaving the acetabulum. Mr. Syme,* who dissected the body of a man recently dead, whose thigh had been dislocated into the ischiatic notch (so called), found the gluteus maximus nearly torn asunder, the head of the femur being imbedded in its substance, the gluteus minimus, the pyriformis, and the gemellus superior lacerated, the capsular ligament extensively torn close to the edge of the acetabulum, and the round ligament completely separated from the femur. The head of the femur was lying in the great ischiatic notch, upon the gemelli and the sacrosciatic nerve, behind the acetabulum and a little above it; being situated between the upper margin of the notch and the great sacrosciatic ligament. Hamilton records a case which he examined where the gluteus was not torn, but the obturator externus was lacerated. So few autopsies have been made in these dislocations that it seems impossible to form a just con-

* Hamilton, p. 661.

clusion. In some cases, when the head of the bone emerges near the thyroid foramen and passes upward, Bigelow says the obturator internus will be found between the head of the bone and the acetabulum; in others I have no doubt this muscle is torn, and the pyriformis, if not lacerated, is behind the head of the bone.

Symptoms.—Most authors, if not conceding this dislocation to be a variety of the dorsal, agree that the symptoms are in many respects similar. There is less shortening; the thigh is flexed upon the body, adducted and rotated inward. The flexion is not so great as when higher up on the dorsum; there is the same difficulty in abduction and adduction, unless the thigh has been manipulated, when, according to Bigelow, the muscular fibres are torn, the capsule also lacerated, and the head is then found higher up on the dorsum. Mr. Syme* has called attention to a valuable diagnostic sign, which, he says, is never absent, and is never met with in any other injury of the hip-joint; this is "an arched form of the lumbar part of the spine, which cannot be straightened so long as the thigh is straight or on a line with the patient's trunk; when the limb is raised or bent upward upon the pelvis, the back rests flat upon the bed, but, so soon as the limb is allowed to descend, the back becomes arched as before." Hamilton also directs attention to another sign proposed by Mr. Syme for old dislocations, by making an examination per vaginam or rectum. In addition I would call attention to the trochanter, which, in this dislocation, is found occupying an unusual position, generally determined by measurement. The immobility of the recently luxated limb, the inversion of the toes, and, consequently, the position of the patella, which, in this dislocation, is not so much everted as in the dislocation higher up on the dorsum, all aid to establish the diagnosis, which, by some writers, is considered difficult.

This difficulty, or these differences of symptoms, may be owing to some intervening muscles. Thus Bigelow says, the bone first escapes below the socket when the thigh is flexed, and the limb becoming subsequently extended, while the head of the bone is

* Hamilton, p. 664.

unyieldingly suspended beneath the socket by the Y-ligament, the head slips upward, not only behind the acetabulum, but also behind the capsule and obturator internus muscle. In this way we have, intervening between the head of the bone and the acetabulum, the capsule and the obturator muscle, which not only presents a barrier to reduction, but also explains the rigidity which is occasionally met with.

Reduction.—The treatment of this dislocation is very similar to the one upon the dorsum; and where the obturator is torn, together with the lower part of the capsule, no difference worthy of mention need be suggested. The flexion method seems here to meet all the requirements, for, as we have already noticed, the tendon of the obturator internus, which intervenes in many cases between the head of the bone and the acetabulum, is first to be avoided. This is done by flexing the thigh upon the body, and making slight circumduction with abduction, then a jerk upward, at the same time rotating outward.

It can be readily understood why Sir A. Cooper considered this dislocation so difficult; for, by the extension treatment, not only was the great strength of the Y-ligament to be overcome, but the obturator had to be torn or forced apart. In a number of cases cited by the same author there was no audible snap, but the bone was found in the acetabulum after all extension had been removed, seeming to indicate the passage of the head of the bone through some muscular substance. The flexion method, as practiced by Drs. Smith and Reid, seems to be one that obviates the rupture of this tendon (obturator internus), for, by flexing the thigh, the tendon of the obturator is disengaged.

A more certain method is that practiced by Bigelow. If the limb is rigid, he circumducts the flexed limb inward; then flexes the thigh so that it will be perpendicular to the pelvis, and jerks upward. Dissection shows how this tendon becomes engaged between the head of the bone and the acetabulum. To produce this dislocation on the dead subject, the thigh must be flexed toward the abdomen, with circumduction inward; then force applied to outside of hip, when the head of the bone emerges near the thyroid foramen, through the rent in the capsule; then

upward toward the dorsum; and, if the obturator is not ruptured, it will generally be found in the situation already described.

If the manipulation fail, the right-angled extension, as described for the dorsal dislocation, will be valuable. That there is danger of the head of the bone being thrown into the thyroid foramen is well attested by all who have tried reduction by manipulation. I think it generally happens from pushing the knee too much downward and forward when about to perform rotation and extension; in other words, to avoid such a mistake, let the limb take its own course, only bearing in mind the ilio-femoral ligament, which acts as the fulcrum, and all the force necessary to their use is upward extension.

Hamilton* describes a case reduced by manipulation in which, after having the head, as he supposed, in the acetabulum, it slipped back to its old place, near the sciatic notch. I here append it, for it illustrates his manner of reduction and the liability of the bone to find another situation: "Charles McCormick was caught between two cars, with his back resting against one car and his right knee against the other, the right thigh being raised to a right angle with the body. As the cars came together he felt a 'cracking' at his hip-joint, and found himself immediately unable to walk or stand. Two hours after the accident I examined the limb carefully, and made arrangements for the reduction with the pulleys, in case the attempt by manipulation should fail.

"The patient lying upon his back, I seized the right leg and thigh with my hands, the leg being moderately flexed upon the thigh, and carried the knee slowly up toward the belly, until it had approached within twelve or fifteen inches, when, noticing a slight resistance to farther progress in this direction, I carried the knee across the body outward, until I again encountered a slight resistance, and immediately I began to allow the limb to descend. At this moment a sudden slip or snap occurred near the joint, and I supposed reduction was accomplished; but on bringing the limb down completely, I found it was still in the ischiatic notch. I think the head had slipped off from the lower

* Hamilton, Fractures and Dislocations, p. 665.

lip of the acetabulum, after having been gradually lifted upon it. Without delay I commenced to repeat the manipulation, and in precisely the same manner. Again, at the same point, when the limb was just beginning to descend, a much more distinct sensation of slipping was felt, and on dropping the limb it was found to be in place and in form, with all its mobility completely restored.

"No outcry was made by the patient, yet he informed me that the manipulation hurt him considerably. The amount of force employed by myself was just sufficient to lift the limb, and the time occupied in the whole procedure was only a few seconds."

In some cases the head of the bone has a tendency to slip into the thyroid foramen from causes already mentioned, and it seems remarkable with what impunity this had been done and no serious results follow, seeming to confirm the statement of Bigelow that laceration of the capsule produces no bad effects. Hamilton mentions a case in which the head of the bone slipped several times into the foramen and back again into the sciatic notch when the original dislocation occurred, which, unhappily, was followed by morbus coxarius. No mention, however, was made concerning a predisposing tendency to that disease. I well remember a dislocation which was reduced at the Pittsburg Hospital, where the bone slipped several times from one position to another, though with no bad result; the man left the ward in three weeks seemingly well.

Thyroid Dislocation.—The cause which produces a dislocation into the thyroid foramen is force applied to the back of the body or pelvis, when the body is bent and the thighs are spread apart. The head of the bone emerges from the under side of the capsule, the thigh rotates slightly outward, and the femur in this position is arrested in the thyroid foramen, upon the obturator externus muscle. The ligamentum teres is torn. Sir A. Cooper says* that "dislocation of the femur into the foramen ovale is generally caused by a heavy weight falling upon the pelvis, whilst the back is bent forward and the thighs separated from each other. The ligamentum teres and the lower part of the capsule are torn

* Sir A. Cooper, p. 50.

through, and the head of the bone becomes placed in the posterior and inner part of the thigh upon the obturator externus muscle."

Symptoms.—The bent position of the body, the separated knees, and the increased length of the limb, are the principal diagnostic symptoms. The limb is flexed and abducted, the heel raised from the floor, and the toes point outward and forward. The trochanters being arrested and suspended by the Y-ligament, while the head of the bone descends from the socket, the thigh is flexed at an angle of about 35°, and also abducted until the great trochanter, by swinging outward, gets a bearing on the acetabulum and the adductor muscles become tense.*

On the dissected subject, if the inner branch of the Y-ligament be ruptured, the bone is suspended by the great trochanter and the eversion is diminished. Bigelow says it might be supposed that the extended psoas and iliacus muscles are concerned in the flexion, yet, after the Y-ligament is divided, the tense fibres of these muscles produce a less degree either of flexion or eversion, and can be broken by depressing the knee.

Sir A. Cooper† mentions a specimen in the St. Thomas Hospital Museum which had been unreduced. The head of the thigh-bone was found resting in the foramen ovale, but the obturator externus muscle was completely absorbed, as well as the ligament naturally occupying the foramen, now entirely filled by bone. Around the foramen ovale bony matter was deposited so as to form a deep cup in which the head of the thigh-bone was inclosed, but in such a manner as to allow of considerable motion; the cup thus formed surrounded the neck of the thigh-bone without touching it, and so completely inclosed its head that it could not be removed from its new socket without breaking its edges. The inner side of this cup was extremely smooth, not having the least ossific projection at any part to impede the motion of the head of the bone, which was only restrained by the muscles from extensive movements. The original acetabulum was half filled by bone, so that it could not have received the head of the thigh-bone if an attempt had been made to

* Bigelow, p. 72.

† Sir A. Cooper, p. 50.

return it to its natural situation. The head of the thigh-bone was very little altered; its articular cartilage still remained; the ligamentum teres was entirely broken, and the capsular ligament was partially torn through; the pectoralis muscle and adductor brevis had been lacerated, but were united by tendon; the psoas and iliacus internus, the glutei and pyriformis were all upon the stretch.

Vertically Downward.—Hamilton, in his account of anomalous dislocations, classifies this as directly downward.

Cause.—From the small number of cases of this dislocation on record, it seems to have been produced by force applied to the back or pelvis while the limb was extremely flexed and abducted.

Pathology.—On post-mortem examination of a case at the London Hospital, the head of the bone was found midway between the ischiatic notch and the obturator foramen. The inferior gemellus and the quadratus femoris had been torn, the ligamentum teres wholly detached, and there was laceration of the lower part of the capsule.

Symptoms.—The leg shows less eversion than in the thyroid, providing the Y-ligament be not ruptured. In a case cited by Bigelow, as described by E. Gurney, the flexion was moderate, but, if carried beyond the sitting posture, painful; the knee lengthened about one inch, standing and sitting; the foot capable of rotation inward and outward, and the limb able to support the weight of the body in walking, the patient having walked two hundred yards on the day of the accident, and a mile six days after. Hippocrates is supposed to refer to a similar dislocation when he says "the leg and foot appearing pretty straight and not much inclined toward either side, the sole of the foot on its own line and not inclined outward. The head of the femur bearing on the lower part of the acetabulum allows considerable weight to be borne, although to walk the patient is in a bent position."

Obliquely Inward on Thyroid Foramen, or as far as the Perineum.—This dislocation has been very seldom met with. The force necessary to produce it must cause extensive laceration of all the small muscles on the posterior aspect of the thigh. Ac-

cording to Bigelow, some portion of the ilio-femoral ligament still remains, which gives the limb a certain amount of inversion.

A case of this luxation was reported by Willard Parker, in the *New York Journal of Medicine*, March, 1852, p. 188. "A man was standing beneath a canal-boat, his legs apart, and received the weight of the falling boat upon his back. The left leg and thigh were found extended at a right angle with the body, and a little inverted, while the head of the femur could be felt in the perineum behind the scrotum. Extension outward and downward carried the head of the bone into the thyroid foramen, whence it was reduced by carrying the femur across its fellow."

Malgaigne quotes the case of Amblaid which also illustrates the cause and symptoms of this dislocation. The lesion was caused by a fall from a cart upon the leg, which is supposed to have been already luxated by some twist before the patient reached the ground. The thigh was spread at a right angle to the body, with a little outward rotation. To reduce it, the leg was drawn downward and outward, and the head of the bone lifted outward with a towel. The head entered its socket by the way of the foramen ovale. This case showed eversion, while the preceding one exhibited inversion.

It is obvious that, in this dislocation, the ligaments and muscles are so torn that a moderate amount of extension and pushing or lifting of the head of the bone will effect reduction, so that the flexion method, to be described when speaking of these downward dislocations collectively, will be omitted here.

Obliquely Outward as far as the Tuberosity, Downward and Backward.—This variety occurs more frequently than the preceding one, but, like it, there is generally extensive laceration of muscles, but whether the ligaments are extensively torn has not been determined, as so few autopsies have been made with a view of ascertaining the integrity of the ligaments.

Cause.—Force applied to the back or pelvis at the same time that the limbs are flexed and widely separated from each other.

Symptoms.—The dislocated thigh flexed upon the pelvis and resting on the sound one, the leg flexed upon the thigh, the knee below its fellow, the toes turned inward, the back of the foot over the origin of the metatarsal bones of the uninjured side;

the limb cannot be extended without producing extreme pain; the point over the acetabulum is depressed; the head of the bone can be felt moving under the fingers when the limb is rotated. The patient generally lies on the sound side, with the injured limb resting on the bed.

These symptoms vary, depending on the amount of laceration of the ligament and muscles from violence.

Pathology.—In some autopsies the obturator externus was torn, also the pyriformis and other small muscles around the acetabulum. The pathology differs with the symptoms, and depends upon the force received and the position of the head of the femur. Bigelow treats these two varieties as depending upon the ilio-femoral ligament and the force which is received either to send the bone toward the perineum or toward the tuberosity of the ischium, taking for granted that the ligament is not ruptured. When the ligament is ruptured, the symptoms of flexion are wanting. He says:* "When the thigh is flexed it is easy to imagine that the head of the femur, suspended by the Y-ligament beneath the lower margin of the socket, pauses there, hesitating between the thyroid and the dorsal luxations. In extreme flexion the head may reach as far as the tuberosity on one side and the ascending ramus of the ischium, and even the perineum, on the other. If the head of the bone is thrust down near the tuberosity, the limb is in extreme flexion, with perhaps adduction. If it is forced inward upon the perineum, we naturally find, also, with extreme abduction, the thigh standing out at right angles with the body, and, as there is no firm bearing for the trochanter in the perineum, as in the thyroid foramen, the toes may be inverted or everted."

On dissection it is found that the Y-ligament will allow the head of the bone to descend and be placed on the centre of the tuber ischii and the ascending ramus of the ischium. This is found, however, when there is extreme flexion, but should any portion of the ligament be ruptured, the flexion is decreased and the inversion or eversion increased according to which fasciculus of the ligament is ruptured.† In the downward dislocations, if

* Bigelow, p. 74.

† Ib., p. 78.

the inner fasciculus of the Y-ligament is ruptured, the head of the bone is inclined downward by an inward rotation of the limb, still suspended at the outer trochanter, the head of the femur being then comparatively lower, and the limb less flexed than if the inner fasciculus were unbroken. Such a state of the parts might exhibit the head of the bone in the neighborhood of the tuberosity without excessive flexion, but the limb would be greatly inverted.

Reduction of the Thyroid Varieties.—It will be best, in reduction of these dislocations, if the head of the bone seems to be firmly fixed in position, to lacerate the capsule, which may be performed by flexing the thigh and circumducting it inward. After having done this, if necessary, flex the thigh upon the abdomen, but bring it up in a state of abduction, making this abduction greater or less according to the position of the bone. Should it be near the perineum, less abduction will be required than if found near the tuberosity. The thigh should not be flexed at more than a right angle to the body, then rotated inward and adducted, when the bone, if on the margin of the acetabulum, slips in place when the limb is extended.

In examining these manipulations upon the skeleton, it will be seen how carefully the manipulation should be made, for if adduction is performed hastily, the bone is apt to slip back to the original situation, or upward below the tendon of the obturator.

It seems possible that when the surgeon has made flexion, abduction, and rotation, the bone should glide to its place unaided, except by keeping the limb in place, and gently aiding abduction and extension. Hamilton, as in the dorsal dislocations, performs these movements by allowing the bone, as it were, to find its own way. He thus describes his method: "Having administered chloroform, I flexed the thigh upon the body, carrying the limb upwards abducted, until it was nearly or quite at a right angle with the body; then inclining the knee slightly inward, I brought it down again, and when the thigh had nearly reached its bed, it fell into its socket with a dull flapping sensation. In every step of the procedure I followed the inclination

of the limb."* The attentive observer will perceive, I think, that in these dislocations the ilio-femoral ligament acts as the fulcrum whereby these manipulations place the head of the bone in the acetabulum.

For purposes of usefulness, I take the liberty of appending several plans of reduction, so that if one should fail, others, perhaps, may succeed.

1. *Rotation.* Flex the limb toward a perpendicular, and abduct it a little to disengage the head of the bone; then rotate the thigh strongly inward, adducting it, and carrying the knee to the floor. In this manœuvre the action of the ligament may be aided, if necessary, by a towel passed round the head of the femur to draw it upward and outward. Rotation outward may be substituted for inward rotation.

2. *Traction.* Flex the limb towards the abdomen, and draw the thigh outward by a towel passed round the upper part; or thrust it outward by applying the foot to the inside of the groin.

3. Flex the thigh upward and outward, and drag or jerk it in that direction towards the socket.

4. Lay the patient on his belly, on the edge of a table, the injured thigh hanging, and the leg bent to relax the flexors; then draw the head of the femur outward with the aid of a towel.

5. Place him in a sitting posture, with a log, or post, or bedpost between his thighs, and pry the head outward over this fulcrum by means of the long shaft of the femur.

6. Let him lie on a table, the limb flexed as usual. Then let an assistant, turning his back to the patient, carry the flexed knee over his own shoulder, grasping the foot, and endeavoring thus to lift the pelvis, while the surgeon draws the thigh outward by a towel in the groin.

7. Let the surgeon, facing the patient, place the flexed limb upon his shoulder, and embracing the thigh near the pelvis, lift and direct the head of the bone toward the socket.

8. Let the capsular orifice be enlarged by a little circumduction of the flexed thigh inward, as if to convert the thyroid into

* Hamilton, p. 671.

a dorsal luxation; and let the pelvis, suspended by the limb, be then depressed by the foot of the surgeon, while the thigh is drawn outward, if necessary, with a towel.

9. Convert the thyroid into a dorsal luxation, and proceed accordingly.

10. Most of these manœuvres may be executed while the patient lies on his sound side, if counter-extension be applied as a substitute for the weight of the body.

Pubic Dislocations.—Cause. Dislocation upon the pubis generally happens when, in walking, on putting the foot into some unexpected hollow in the ground, at the same time the body is bent backward, the head of the bone is thus thrown upon the os pubis. It may be caused by a blow upon the back of the hip when the thigh is everted, or by the passage of a heavy weight over the back of the pelvis. The last-mentioned is, perhaps, the most frequent cause.

Pathology.—To show how tenacious the Y-ligament is, and how it remains almost entire whilst the muscular structure is torn, I will mention a case in point, as recorded by Sir A. Cooper: The patient had been run over by a cart, his foot, at the time, being turned outward. He died of inflammation and consequent suppuration, induced by the injuries, after the bone was reduced. On post-mortem examination it was found that the pectineus muscle was torn; the adductor longus nearly torn through; the head of the bone had passed over the internal circumflex artery; the tendinous insertion of the gluteus maximus was lacerated and detached from the trochanter major; the gemelli and half of the quadratus femoris muscles were detached from their insertion; the tendon of the pyriformis was also partly lacerated, but adhered to the tendon of the obturator internus; the capsular ligament was torn through posteriorly, but the anterior part, which is the Y-ligament, covered by the psoas and iliacus muscles, was the only part not torn through; the ligamentum teres was torn from the head of the femur. In this interesting post-mortem, although the head was forced a considerable distance from the acetabulum, the Y-ligament remained entire, and it seemed that, as all the structures around the head of the bone were torn or lacerated, it must have been

this ligament which kept the bone in the position when dislocated.

Symptoms.—The distortion of the limb will depend upon the condition of the Y-ligament. If both fasciculi remain entire, the limb is often an inch shorter than the other. The knee and foot are turned outward, and cannot be rotated inward, but a slight power of flexion forward and outward remains. The striking feature of this dislocation seems to be that the head of the femur may be felt upon the pubes above the level of Poupart's ligament, on the outer side of the femoral artery and vein. It feels like a hard ball, which is readily perceived to move on moving the thigh. Sir A. Cooper mentions three cases of this dislocation which were overlooked, although it seems easy of detection. Bigelow remarks, concerning the symptoms, that the principal agent in making eversion is the Y-ligament, whilst the untorn capsular fibres and the obturator muscles are agents in preventing flexion, their insertions being lower than the head of the displaced bone, which thus becomes a fulcrum, the lever, in flexion, being the shaft, but in pubic dislocations, nearer the iliac spine, the obturator is not tense, and hence flexion is probably hindered by the outer and inferior parts of the capsule when they still exist.

Reduction.—Sir A. Cooper, in reducing this dislocation, made the line of extension a little backward and downward, and at the same time raised the hip by a towel passed around the superior part of the thigh and over the surgeon's shoulder. The leg was kept bent nearly to a right angle with the thigh. After extension was made for a few moments, and the thigh being raised, an assistant would take hold of the ankle and raise it, keeping the knees at the same time depressed, by which means the thigh was turned over inward.

This extension and movement were kept up for a short time, as he says, and the bone would snap into the acetabulum. Skey depended principally upon extension in the same direction as Sir A. Cooper, and only lifted the thigh when the head of the femur was completely over the pubes, believing that, if extension was kept up a sufficient length of time, the muscles would, to use his expression, suck the head in place, providing that the

extension had brought the head of the bone in the neighborhood of the acetabulum.

A careful examination of the skeleton shows that great care must be taken when such movements as rotation are performed, for the psoas and iliacus muscles are apt to be wound around the head of the bone, and if such should unfortunately happen, the olden time method of Skey and Sir A. Cooper would be preferable. To avoid the danger mentioned, Hamilton says we should be careful not to continue the rotation outward after the head of the femur has risen above the pubes; on the contrary it will be necessary, at this point, to rotate the thigh again gently inward, which, by compelling the head to hug the front of the pubes, will enable it, while flexion is being made, to slide downward under these muscles toward the socket. These remarks, however, apply only to those cases where the head of the femur has passed to the inner side of the pubes.

There have been several ways in which this dislocation has been reduced by manipulation, and they seem, from the descriptions, widely different from each other. Dr. Ingalls, of Chelsea, Massachusetts,* succeeded by carrying the limb into its greatest state of abduction and rotating the thigh inward, the replacement of the bone being aided also by pressing upon its head with his fingers; while Dr. Fountain* succeeded by an entirely opposite mode of procedure, namely, by adducting the limb forcibly, rotating the thigh outward, and then flexing the thigh upon the abdomen. Baron Larrey† succeeded in reducing a case of dislocation "before the horizontal portion of the pubes," by suddenly raising, with his shoulder, the lower extremity of the femur, while with both hands he depressed the head of the bone.

In this dislocation, as in all the others, it is recommended by Bigelow that when the capsular orifice is small, which may be known by the extreme rigidity, circumduction of the flexed thigh inward will enlarge the orifice. There is doubt in regard to this rigidity being always caused by a small capsular opening. In some it may be and probably is the cause, but in

* Hamilton, p. 677. † Ib., p. 678.

others it is likely owing to effusion and the contraction of surrounding structures.

For treatment this diversity need make no difference, as the circumduction and other movements loosen up the effusions, and in this manner help our efforts at reduction.

Bigelow gives several ways of reducing this dislocation, depending upon the Y-ligament as the fulcrum, and by a series of rotation and flexion peforms reduction.

The reduction may be accomplished in a variety of ways, among which are the following:*

1. *By Traction and Rotation.*—Flex the limb to a right angle while drawing it down; rotate either inward or outward, and, directing the head of the bone by its shaft, rock it downward into its place.

2. While extending the limb horizontally, with counterextension by the foot in the perineum, raise the patient to a sitting posture, counterextend against the pubes, and rotate inward.

3. The same method may be pursued, the patient lying on his belly on the edge of a table, or on his sound side.

4. (See *Reduction of Thyroid Dislocations*, Nos. 7 and 8.)

5. Flex and abduct the limb and draw it outward, at the same time pressing the head downward and outward.

By Rotation.—Reduction by rotation is to be accomplished by much the same method as in the thyroid dislocation, except that in the pubic luxation the flexed limb should be carried across the sound thigh at a higher point. Briefly, while drawing upon the thigh, flex and abduct it to disengage the head; then rotate inward, and, when the bone leaves the pubes, continue the rotation while straightening the limb; or circumduct the bent limb inward.

Anterior Oblique Dislocation.—In this dislocation, by great violence, the head of the bone is forced up to a point near the anterior margin of the ilium, and midway between the anterior inferior and anterior superior spinous processes of that bone.

Symptoms.—Sir A. Cooper relates a case from which I take

* Bigelow, p. 89.

the following symptoms: The leg is shorter, by three inches, than the sound one; the knees and toes turned out and attempts to rotate the thigh inward produces great pain; abduction and adduction are difficult and painful; the hip is flattened, and the trochanter major difficult to discover; there is no hard tumor on the pubes, as in pubic dislocation, but close below the anterior superior spinous process of the ilium, between it and the inferior there will be found a distinct hard tumor, which can be felt moving in unison with the thigh when it is flexed or extended. Bigelow says, in speaking of this dislocation, "the outer branch of the Y-ligament must be broken." From experiments performed, as mentioned in the first part of this paper, we could not succeed in producing this dislocation on the dead subject without first rupturing all the posterior capsule of the joint, and then but an imperfect idea could be formed of the nature of this anomalous dislocation; anomalous because unusual and very seldom met with.

Reduction.—Sir A. Cooper succeeded in reducing a case of this dislocation by extension by means of pulleys, while at the same time, by means of a towel passed under the patient's thigh, he raised the head of the bone, which now left its position at the anterior superior spine and gradually came down, and then turned the knee firmly inward, at the same time pressing it toward the opposite.*

Manipulations will succeed in these cases, and perhaps with better results than extension. Hamilton† says: "The limb should be seized in the usual manner, at the knee and ankle, carried up toward the face, abducted, then rotated inward, gently adducted, and finally brought down again to the bed. At the moment when the rotation and adduction commence, the head of the bone should be pressed toward the socket by the hands, and, if necessary, lifted a little over the margin of the acetabulum by moderate extension at a right angle with the body." Bigelow‡ says: "The anterior oblique dislocation may be reduced by inward circumduction of the extended limb across the

* Sir A. Cooper, p. 85. † Hamilton, p. 680. ‡ Bigelow, p. 95.

symphysis, with a little eversion, if necersary, to disengage the head of the bone."

Should both branches of the ilio-femoral ligament be wanting, extension, with care that the head of the bone does not impinge upon the ilium, will be the most likely to succeed; for if the ligament is gone, there is no fulcrum whereby these efforts at reduction will prove successful.

Supraspinous Dislocation.—Bigelow gives this name to all those dislocations in which the head of the femur is lying above the anterior inferior spinous process, the neck lying across the edge of the pelvis, and the trochanter turned back.

Symptoms.—The symptoms of this dislocation differ but slightly from the anterior oblique. The head of the bone is seen more prominently in front and between the spinous processes of the ilium; the limb is shortened, abducted, and everted.

In a case cited by Sir A. Cooper, under old dislocations of the pubes, and classed by Bigelow as a dislocation of this kind, the toes pointed backward and the limb could not be brought down. The principal symptom, however, in which there can be no mistake, is the head of the bone which projects forward from a line drawn from one spinous process of the ilium to the other. I am not prepared to agree with Bigelow when he says the eversion is due to the obturator internus muscle and the ilio-femoral ligament, for it seems impossible to produce the same upon the dead subject without first rupturing that muscle; but, as he makes a distinction in regard to severity as to the distance the bone projects into the abdomen, his theory seems to be plausible; for, in that case, if the head of the bone projects beyond the ilium, not only is the obturator internus ruptured, but also the small rotators of the hip.

Reduction.—It is the better plan to unhook the neck by circumduction of the extended limb inward, with eversion enough to disengage it from the edge of the pelvis. The head of the femur then lies upon the dorsum, and the reduction may then be accomplished as usual in the dorsal dislocation, although rotation will be less effectual than if the ligament were entire.

Everted Dorsal Dislocations.—Mention has been made, when speaking of dorsal dislocations, that the inversion was due to the

outer fasciculus of the ilio-femoral ligament, so that, when rupture of this branch occurs, the foot turns out according to the displacement of the head of the bone. This can be illustrated on the dead subject in a very satisfactory manner.

Bigelow, to whom credit is due for pointing out and explaining this dislocation,* says: "It has been stated that inversion of the limb in the dorsal luxations is due to the tense outer branch of the Y-ligament. When the injury has been such as to rupture these fibres, the limb may still be inverted; but it can also be freely everted. Having escaped from the socket under these circumstances, the bone may occupy any point upon the dorsum within the range of the inner fasciculus. The limb is then shortened in proportion to its upward displacement, the foot being sometimes everted a little, sometimes lying flat upon the bed, or even directed backward; the head of the femur facing accordingly, and in the direction of its internal condyle. The femur is suspended midway between the inner branch of the Y and the obturator tendon. Theoretically it may be luxated either below or above this tendon; but, in the former case, the degree and nature of the force required to break the outer band would be likely to rupture the tendon also. If the head of the femur is driven upward and backward, above the obturator tendon, the same forced eversion which would sever the inner branch of the Y-ligament would relax this tendon, and so contribute to prevent its rupture. The tendon may then lend its aid in giving position to the limb."

Reduction.—In a case classed by Sir A. Cooper as anomalous, the symptoms of everted dorsal were plainly manifest. Reduction in this case was made by traction or extension from the knee, with counter-extension by the foot in the perineum. When this had been made some time, the patient was directed to raise his shoulders from the bed, when extension was suddenly increased, with forcible inward rotation of the thigh, and the head snapped into the socket.

In Dr. Van Buren's case† of everted dorsal dislocation the limb was shortened an inch, and slightly everted. The tro-

* Bigelow, p. 100. † Ib., p. 101.

chanter was an inch and a half above its usual position, and the head of the bone was obscurely felt in the back part of the sciatic notch. After repeated attempts at reduction by manipulation the bone was reduced by pulleys applied to the limb in the flexed position.

The method of reduction advised by Bigelow is as follows: The limb should be flexed and inverted, with adduction, if necessary, to make room for the head of the bone to slide upon the ilium, and the dislocation is then practically a simple dorsal dislocation, and easily reduced; or if not, perhaps the whole upper part of the capsule is detached, making the luxation irregular.

Irregular Dislocations.—The dislocations which have now been described are the so-called regular dislocations, because the ilio-femoral ligament is either entire or only a part of it is torn, thus fixing the limb in position, and aiding us in efforts at reduction by being used as the fulcrum. The remaining dislocations yet to be described are those in which the ilio-femoral ligament is completely torn.

Bigelow says, when any mechanism shall be shown always to give to a luxated limb, after the Y-ligament is torn asunder, the same position, under the circumstances the luxation may be withdrawn from the irregular and classed as regular.

Irregular Upward Luxation.—The bone may be thrust upward upon the inferior spine, or above it, with rupture of the Y, but can then be drawn down as far as the remaining capsule will allow, unless detained by being hooked over the muscles arising from that point.

Irregular Downward Luxation.—This variety should be distinguished from that in which the Y remains entire. If the Y be wholly broken the limb is suspended by the remaining and comparatively slender capsule, which in such a case would probably be ruptured, thus abandoning the limb to the muscles.

Reduction.—When the Y-ligament is torn asunder the fulcrum for reduction is lost, as rotation cannot be performed with any benefit. This is shown plainly upon the skeleton after the ligament is divided, so that the reduction of these dislocations must be by flexion and extension, with force to guide the head of the bone to the socket.

The extension should be made in such a manner that the head of the femur will not be engaged on any of the bony prominences surrounding the acetabulum. The plan of Skey would be useful here, which is to make extension in such a manner as to draw the head of the bone slightly away from the acetabulum, then pushing or lifting the bone in place.

Old Dislocations.—The question naturally arises in this portion of our subject, how long after dislocation may reduction be accomplished? The answer to this is fraught with many difficulties. If there could be an established period, or a proximate idea of the same, as to the length of time before the acetabulum becomes filled with plastic material, then an answer satisfactory could be given. At present we have no fixed ideas concerning the time, so that we can only give a partial answer to the first question by saying that so long as the socket is still excavated there is chance for reduction, and plead ignorance of any manner yet described whereby we may ascertain the condition of the acetabulum. Sir A. Cooper advised eight weeks for the hip, after which, if the bone had made for itself a new articular facet and there was a moderate amount of motion, he advised no interference; but on the other hand, if the patient had great pain from the position of the bone, attempts at reduction he considered justifiable.

Other surgeons have taken great exceptions to this, and show that a period of two or three years may elapse before the acetabulum is obliterated.

Fournier has placed a dissection on record where the head of the femur had been dislocated during thirteen years, and in which the acetabulum retained its form and depth and cartilage.

Dr. Brown, of Boston, has published a record of twenty-three cases of old dislocations. The average time before reduction was accomplished was one year, nine months and some days.

This seems encouraging, but a majority of these cases had been unreduced for six months. In one of four years, cited by Cooper, the reduction was accomplished accidentally. Notwithstanding the opinions of older writers, it seems now to be the practice that an effort at reduction is justifiable at any time after dislocation, provided care is taken that the force is not sufficient

to fracture the neck of the bone, or, by proximity to important vessels, destroy their integrity. Hamilton mentions several cases where the reduction was successful after seven months, one in particular occurring in the practice of Martial Dupierris* of more than six months' duration. He also cites a case coming under his supervision where reduction was unsuccessful, but believing the ilio-femoral ligament constituted the chief obstacle to reduction, he introduced a narrow-bladed bistoury and cut the ligament, or at least thought he had cut it, for both rotation and abduction could be performed more completely.

The latter method does not seem to be as safe as that proposed by Bigelow, and which we have referred to very often when speaking of those cases where there is much rigidity, that is, by circumduction of the extended or flexed limb, which enlarges the aperture, and which, if persisted in on the dead subject, will rupture the ilio-femoral ligament, and, I think, would be a far safer procedure than to make a wound which must be still further enlarged by manipulation. To overcome the inversion, which is a troublesome position in those old dislocations upon the dorsum, Bigelow says that should we even fracture the neck of the bone we would have a better limb with this inversion corrected than an unreduced dislocation. He illustrates by a case which was under his care, of an old dislocation of six months. On coming under his treatment the patient was unable to walk, the limb was shortened two inches, slightly flexed and inverted to such a degree that the patella faced the inside of the opposite thigh, and the toes of the affected limb were more easily placed behind the heel of the other foot than the instep. He tried to reduce the dislocation by flexion, and having bent the limb slowly upon the abdomen found the head of the bone was broken from the neck. The patient was then placed in bed, the limb in much the same position as before reduction was attempted. In the course of a week the foot was gradually everted, then extension was applied for three months, varying the weight from seven to twenty-one pounds, then in two weeks he was allowed to go on crutches, and in six weeks more he abandoned the

* Hamilton, p. 686.

crutches and walked with a cane. At the end of two years he could walk without any support, the bone had united, and he enjoyed good health. Six years after the accident the limb was shortened an inch and a half, but otherwise sound.

In summing up the various opinions in regard to these ancient dislocations it seems justifiable to practice, first, the plan proposed by Bigelow, namely, by circumduction of the limb break up the adhesions which form around the head of the bone, then by manipulation try reduction. If this fails a resort to angular extension will, perhaps, be successful, taking care that the rotation is done in such a manner that it does not endanger the head of the bone. Should this fail, the consent on the part of the patient must first be obtained before a resort is had to such a procedure as breaking the neck of the femur, which, it seems to me, is only applicable to those dislocations upon the ilium where inversion is so great as to make a useless limb.

Dislocations complicated with Fractures of the Femur.—This accident is rare, and from the few published cases on record we find that the treatment has been by applying firm splints to the fractured femur, then reducing the dislocation by right-angled extension, with pushing or lifting the head of the bone to its place. Such manipulations as abduction and adduction may be performed to assist reduction, but owing to the broken shaft of the femur rotation is impossible.

This is also the method adopted by John Bloxam and Malgaigne.*

Sir A. Cooper relates a few cases where the fractured femur was allowed to unite before attempts at reduction were made. In some these attempts were successful. Bearing in mind the number of cases which have been reduced after two months, this plan of waiting is not without its benefits, but still, on the other hand, a dislocated femur with fracture of the same, would be hard to adjust and still more difficult to retain in the exact position necessary for union, so that this treatment should be kept in reserve, and only adopted when all other means have failed.

Medical Treatment.—The patient should be placed in the hori-

* Hamilton, p. 692.

zontal position for at least two weeks, the hip supported by a bandage and the limb kept in a normal position, neither inverted nor everted more than naturally. By so doing the muscles and ligaments unite, and the limb retains its original condition.

After two weeks, gradual motion is permitted to overcome the adhesions which may have formed and to prevent the lacerated tendons from uniting in a contracted state. Although many cases have occurred where the patients have walked in a few days, it will be prudent to allow the use of crutches first, for should an injury have been received by the head of the bone at the time of dislocation, coxalgia might be the result if any undue exertion were made.

I have used Arnica in the first stage of this accident, and know no reason why it is not the best agent we have. For external use a teaspoonful to a pint of water, either hot or cold, to suit the feelings of the patient. The parts to be sponged off and then dried with a towel every three hours, and Arn., 12th, internally at the same intervals. The use of the lotion by means of wet cloths constantly applied, has not proved in my experience beneficial. I may be mistaken, but it seemed to aggravate.

After Arnica, Rhus tox., 30th, three times a day, for the stiffness and soreness which usually follows; then passive motion should be instituted; but should the stiffness remain in cases where we are certain there has been no injury done to the articular surfaces, forcible measures must be employed. But for such it will be best, perhaps, to wait until we are assured that all tendinous and muscular structures have healed. The stiffness continuing after passive motion has been tried, resort to forcible movements is then justifiable. I mention this, because oftentimes, owing to the injury, plastic material is poured out, which in some cases becomes converted into a species of fibrous bands, which not only interfere with motion but give pain, and that to such a degree as to lead us to believe that the joint is not perfect. The movements I deem it best to recommend are first of a rotary kind with the limb extended; when this is performed easily, forced flexion in a sudden manner, to break up the adhesions or contractions which have formed, afterwards allowing a moderate use of the limb.

XII.

DISLOCATIONS OF THE KNEE.

By J. H. Buffum, M.D., Pittsburg, Pa.

The knee-joint, with its shallow articulating surfaces, the absence of strong supporting muscles, and the extensive motion allowable, would seem to afford an excellent situation for dislocations.

The luxation of this joint, however, although not rare, is less frequent than that of the majority of other joints, owing to the number and strength of the ligaments which unite the bones involved.

Luxation of the tibia upon the femur may take place in four different directions; in two of which, forwards and backwards, the dislocation may be complete, while in the other two the luxation is only partial and lateral.

Dislocations in the antero-posterior direction cannot take place without the application of great force;—simple flexion and extension are never sufficient to produce this injury.

Dislocation of the tibia *forwards* is of more frequent occurrence than backwards. It is most frequently brought about by a forced extension of the knee-joint, or the lower and front part of the thigh being struck with considerable force while the limb is extended; in either case the accident will occur the more readily if at the moment of injury the strain upon the joint is increased by a slight rotation of the leg upon its axis. On examination after the injury, the head of the tibia is found pushed upwards and forwards, lying in front of the condyles. The lower end of the femur is felt projecting into the ham, often compressing the vessels to such an extent that the circulation in the leg is arrested. The posterior ligaments of the joint are torn, and the muscles put upon the stretch. The head of the tibia projecting forwards forms considerable prominence upon

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XIII.

COMPOUND DISLOCATIONS.

By J. G. Gilchrist, M.D., Detroit, Mich.

The papers already presented by the bureau have given a complete description of the various forms of dislocation, and we need not stop here to define terms already used. When we speak of compound dislocations, we mean a luxation which is complicated by an accompanying wound through the integument and soft parts; in short, it is an accident which bears the same relation to the commoner varieties as does compound fracture to the simple form. Some authors complicate the subject somewhat by classing under this head all dislocations involving injury to neighboring parts, vessels, nerves, and the like, whether there be an external wound or not. The weight of authority is against such classification, and will not recognize the term when used so loosely. It is often the case that the complete luxation of a joint, with an external wound, *is* complicated by fracture of the bones, even comminution, and much injury to muscles, nerves, vessels, and tendons, but the complications do not make it compound, notwithstanding the gravity of the case is vastly increased.

The joints most liable to this form of dislocation are those of somewhat limited motion, and particularly of the ginglymoid variety; those of a wider range of motion are but rarely so injured, some of them, perhaps, never. It will naturally follow, therefore, that the elbow, wrist, ankle, and knee are the situations oftener observed, and the gravity of the case, from subsequent constitutional irritation, is very nearly in the same order. Nothing perhaps will be so astonishing to the young surgeon as the serious constitutional disturbance usually following these accidents,

and nothing is so hard to explain, even to those of large experience. Sir Astley Cooper (*Fractures and Dislocations*) gives us as good a description of this condition as can be found in any of the more recent works. He says: "In two or three days from the accident, or sometimes as early as twenty-four hours, the patient complains of pain in his back and in his head, showing the influence of the accident on the brain and spinal marrow. The tongue is furred *white*, if the irritation be slight; *yellow*, if greater; and *brown*, almost to blackness, if it be considerable; the stomach is disordered; there is loss of appetite, nausea, and sometimes vomiting; the intestines cease to secrete, as well as the glands connected with them, as the liver, etc., costiveness is therefore an attendant symptom; the skin has its secretion stopped; it becomes hot and dry; the kidneys also have their secretion diminished; the urine is high-colored and small in quantity. The heart beats more quickly and the pulse becomes *hard*, which is the pulse of constitutional irritation from local inflammation, and, in great degrees of it, becomes irregular and intermittent; the respiration is quicker, in sympathy with the quicker circulation; the nervous system becomes additionally affected in high degrees of local irritation; restlessness, watchfulness, delirium, subsultus tendinum, and sometimes tetanus occur. These are the usual effects of local irritation upon the constitution, occurring in different degrees, according to the violence of the injury, the irritability of the system, and the powers of restoration."

This then we are to look for in all cases of compound dislocation and be prepared to meet. Homœopathy has much to promise in this direction, and will often save life and limb, as we shall attempt to illustrate, when other means, judging from past experience, would have at the very best but a negative success.

The indications to be met in the treatment of these injuries are as follows:

1st. All foreign substances must be removed from the wound with more than ordinary care. The smallest particle of sand, shred of clothing, or even detached spicula of bone, may set all our efforts at defiance. My experience has been that suppuration is more to be dreaded in these cases than anything else;

that just in proportion as it is greater or less in quantity and extent, just so much are the chances for or against a recovery. Exercise unusual care, therefore, in cleansing the wound.

2d. Reduction is, of course, a matter of the first importance. While we are at all times to expect more or less loss of function in the joint, the degree of anchylosis will depend largely upon the complete reduction, and the time occupied in the manipulations. Prolonged and violent efforts to replace the parts *in situ*, particularly with the use of pulleys, as formerly prevailed, could scarcely fail to add materially to the inflammation of the parts, and so far add to the probability of a stiff and useless joint, if not be the means of directly inducing a fatal termination. The patient had better be placed fully under the influence of an anæsthetic, ether being in all cases preferable to chloroform, and the parts gently and carefully replaced, according to the method referred to in the paper of Dr. Willard.

3d. When we have restored the integrity of the joint as far as circumstances will allow, the next indication to be fulfilled is perfect coaptation of the edges of the wound throughout its whole extent. There need be no hesitation in making this perfect, closing it completely, as should effusion or suppuration be set up, the removal of one or two sutures, by giving ready exit to the pus or other fluid, will remove all danger of additional trouble. The choice of material for the sutures is a matter that demands attention also; my experience has been that silver or iron wire, or harelip pins, are the very best in every particular. Silk should in all cases be avoided. By placing one or two deep quill-sutures the wound will not infrequently be induced to heal from the bottom at once. This is not the usual practice, I am aware, but my success with this method gives me perfect confidence in its efficacy.

4th. Position of the limb also demands notice. It may be stated, in general terms, that the part must be so arranged that the muscles having a tendency to displace the parts are fully relaxed. Should anchylosis be considered inevitable, we must at the same time secure a position which will allow the best use of the limb afterwards. In nearly all cases, however, a slightly flexed position will be found to meet all the requirements of the

case, both as to muscular relaxation and future usefulness of the part.

5th. Having reduced the dislocation, closed the wound, and secured the best position possible, we must next consider the treatment and dressings. First let it be remembered what we wish to accomplish: speedy union of the wound, the minimum amount of anchylosis, averting suppuration and inflammation as far as possible, and retention of the parts in position. The treatment may then be divided into mechanical and medicinal.

Of the first it is sufficient to say, that the least complicated and cumbersome dressings are in all cases to be preferred. Hence we can find no better bandage than the many-tailed of Scultetus, which is easily applied, and can also be removed, in whole or in part, without disturbing the position of the limb. The joint may be additionally protected by a slight stiffening of the dressings at that point, either by strips of binder's board or light splints. Bags of bran or sand, laid on each side of the limb, will also be found very useful in controlling involuntary movements. Experience has taught me that the drier a wound is kept, the better in every respect. Hence there should be no lotions or greasy ointments used at any time, but particularly should we avoid the drenching of the parts with water, as was formerly so constantly practiced. Keep the wound, therefore, dry and well supported, but lightly dressed. After the external wound is healed, a light plaster of Paris dressing will be found very beneficial, and is more especially desirable, inasmuch as its use admits of the patient going about on crutches.

The medicinal treatment is simple, and has not many indications to meet. The matter of inflammation is probably the most serious, but care in the manipulation and after-mechanical treatment will go far towards averting any danger. Of course, at least so we are taught to believe, a certain amount of inflammatory action is necessary to secure union; whilst having grave doubts as to the truth of this, I cannot give any good argument on the other side at present, and will be forced to accept it as true, perhaps under protest. A few doses of *Arnica* or *Aconite*, according to the indications in each case, will be the proper commencement of treatment, or perhaps, if the shock is very profound,

Opium, *Camphor*, or *Alcohol*, to excite reaction. When this is accomplished, and the inflammation fully under control, *Ruta grav.* will be found of prime importance in hastening the curative process within the joint. *Symphytum* is of equal value in aiding the union of any fractured bones that may exist, but must not be used in combination or alternation with the *Ruta* or any other remedy. The curative process in the joint, or in the fractured bones, will not commence, usually, until the wound in the soft parts is healed or nearly so. To accomplish this the remedy to be employed will depend, to some extent, upon the nature of the wound. If much torn and lacerated, *Calendula;* bruised or crushed, *Arnica*; clean-cut, which can rarely be the case, *Staphys.* Should the wound be punctured, and unusually sensitive and irritable, there is no better remedy than *Hypericum.* The twitching of limbs after fracture and dislocation, which is such an annoying one to both patient and surgeon, can be controlled in many cases by the administration of *Spigelia.* I am indebted for this information to Dr. Willard, I think, and have proved its value more than once.

Of course, under the best conditions, ultimate immobility of the joint must be expected, and the patient made to fully understand it. Many a surgeon has had to sustain the mortification of an action for malpractice, which would have been arrested had he explained the nature of the case fully to the patient before beginning the treatment. It will also be proper to state in this place that when arteries are torn or severed, in all cases prefer the acupressure needle to the ligature. The latter is sure to do serious mischief, and add to the dangers of a case not insufficiently supplied already.

The question of amputation is one that will often arise. There can be no question but that in the surgery of a few years in the past, the question was more frequently presented, and oftener decided in favor of the operation. Our better knowledge of the resources of nature and our improved therapy have had much to do in lessening the frequency of such mutilations. Indeed, in all classes of surgical practice the careful observer cannot avoid being struck with the fact that such operations are becoming more and more the opprobrium of surgery. To sacrifice a limb, in the

cure of a *diseased* body particularly, is looked upon now quite generally as a confession of defeat; often it is so, also, when removed after accident. In all cases of compound dislocation, leave the question of amputation entirely out of sight; if after careful and persistent effort it seems impossible to save the joint, or such disorganization occurs that even life is in danger, prefer resection to amputation. This procedure is no more hazardous than amputation, and gives the patient the benefit of a more or less useful limb. It would be simply a recapitulation of the arguments of others to go into this subject at any length, and I shall therefore call your attention to one or two typical cases, and bring this paper to a close.

CASE I.—A boy, ten years of age, fell from a woodshed, receiving the whole weight of the body upon the right hand, the forearm probably being semiflexed. He sustained a compound dislocation of the elbow, fracture of the olecranon and internal condyle of the humerus, with a severe wound on the back part of the arm, through which protruded the broken head of the ulna. The case looked serious, as the boy was not of a strong constitution, the shock was severe, and hæmorrhage had been moderately free. This was in 1862, when I had not yet learned conservatism, and accordingly amputation was proposed, but emphatically opposed by the parents of the boy. The dislocation was therefore reduced, the fractured bones replaced, and an immovable dressing applied. Under the use of *Calend.*, *Ruta*, and an occasional dose of *Acon.*, the boy ultimately recovered with a useful arm, anchylosed, of course, but a slight amount of rotation remaining, which I have since learned has materially increased.

CASE II.—A carpenter, age about 35, fell from the rafters of a building he was framing to the cellar, and sustained a compound dislocation of the ankle, the foot being bent backwards, the joint opened in front, and a fracture of the external malleolus. The injury was healed, with stiffness of the joint, but good motion was subsequently obtained at the tarso-metatarsal articulation, which was sufficient to give almost complete use of the foot; indeed, a casual examination would not lead you to suspect anchylosis of the ankle.

XIV.

FRACTURES OF THE HUMERUS.

By Malcolm Macfarlan, M.D., Philadelphia.

Head and Neck.—Miss Lucy K——, aged 27, June 4th, 1869, while in the act of stepping from a high carriage, was caught by her dress, and fell to the pavement, receiving the force of the blow on the right shoulder, and producing fracture of the surgical neck of the humerus. The deformity was similar to that seen in the downward dislocation, but distinguished by greater mobility, crepitus, shortening, and the fact that while the head was in position, the extremity of the fractured shaft was easily felt moving in the arm-pit, when the elbow was carried outwards and rotated. The shortening, compared and measured by the left arm when out as far from the body, was over an inch, and the fracture made out to be just above the insertion of the pectoralis major. The treatment was extension, made by drawing the elbow downwards as well as outwards. When the fragments were coaptated, a small pad was placed in the axilla, secured by a roller to a moulded dish-splint covering the whole shoulder and extending all the way round and nearly to the elbow, leaving the joint free. A short inside wooden splint, very light, right-angle in shape, controlled the elbow and forearm. Instead of a sling, circular turns of the bandage around the body secured the whole extremity to the chest, and without dragging upon or disturbing by motion the fractured ends, as in the method with a sling. The dressings were occasionally changed, and entirely removed in six weeks, with a perfect result; motion, usefulness, and appearance of the shoulder being normal. This case was sent me by Dr. H. N. Guernsey.

A nearly similar accident happened to Miss H——, of Germantown, aged 40, sent me by Dr. Thomas Moore, May 10th, 1872. Her hoop caught as she jumped from the carriage and her whole weight was received on the left shoulder, fracturing the bone immediately below the tubercles at the surgical neck. The treatment was as mentioned above, except that the elbow had to be kept some distance out from the side by a very large pad before the bones could be prevented from slipping. The result was excellent, as in the preceding case, the dressings being entirely removed in less than two months.

June 25th, 1872, Mrs. F——, aged 45, fell over or down a whole flight of stairs, striking directly upon the left shoulder and otherwise bruising herself. The swelling from effusion was great, interfered with mobility, and made a diagnosis of the exact nature of the fracture difficult. The shortening was an inch and a half. The treatment and result as in the cases above. Called in by Dr. W. F. Guernsey.

June 27th, 1873, I was sent for by Dr. Emil Tietze to see an old lady at Mrs. L——'s, aged 68, who had by falling a few feet and by direct violence fractured the right humerus, through the surgical neck, rather high up, and, as near as could be determined, without the capsule and through the tubercles. The contusion was considerable, causing some immobility with but little shortening. Crepitation was clearly felt by partially controlling the head of the bone on firm pressure, raising and rotating the arm. There was no impaction. Dressings were applied as in the cases mentioned above. As she left the house in a few days, I do not know the result, but presume it to be good, or I should have heard to the contrary.

November 25th, 1873, at Dr. R. Gardiner's request, I was called to the house of Mrs. W. B. H—— to see a lady 62 years of age, who had sustained a fracture through the surgical neck of the left humerus by tripping on a piece of carpet, pitching forward, and striking the arm and shoulder. The case was clearly made out, as the woman was thin and but little contused. The apparatus already mentioned was applied, and removed in about six weeks with good and useful union.

After ten days, and sometimes earlier, I am in the habit of

changing the dressings, and very lightly but briskly rubbing and kneading the soft parts to excite heat and circulation. This takes away the swelling, removes the usual creases of the dressings, and prevents the numb feeling, at times insupportable when this is not done. Rubbing the exposed hand upwards will often relieve the pain from nerve-pressure caused by the splint and retarded circulation.

Mr. J. C. C——, 85 years of age, fractured the surgical neck of the left humerus by direct violence in falling on the ice, February 14th, 1874. The case was clearly made out, and, on account of his age is remarkable because of his complete recovery in nine weeks with good strong union. This case was sent me by Dr. J. R. Earheart, and treated in the same manner as those already mentioned.

In concluding this list of fractures of the surgical neck it is to be said that I have never had to treat as such fractures of the head and anatomical neck, either within or without the capsule, impacted or non-impacted, that were not compound and involved an operation. I have several such cases to record which can not be properly included here in treatment of fractures.

I have met with but one undoubted case of fracture of the acromion, and that of the right side, in the case of Mr. D——, aged 65, who came to my clinic October 13th, 1871, with a forward dislocation of the shoulder, caused by falling from a height, striking his elbow as it was drawn backwards. Chloroform was given, the dislocation reduced, and the acromion retained in position by a very large wedge-pad in the axilla, keeping the elbow up and out from the body to relax the deltoid. He eventually had normal use of his arm; his age is sufficient to show that this was not a separation of the epiphysis.

Of simple fractures of the shaft of the humerus below the neck and above the base of the condyles, I have not been careful to keep records, as they are generally easy to treat and best retained by four splints. An inside thin angular wooden splint, from armpit to wrist to control the extremity (there may be several of these on hand of different angles, to be changed during the treatment, and prevent partial anchylosis), an anterior, posterior, and lateral short splint for the arm alone, to keep the

bone in position. The whole to be well padded and secured by uniform reverses of the roller.

August 26th, 1869, fracture of the humerus about the middle third occurred to an old lady of 80, living at the house of Mr. George C. T——, Germantown. Notwithstanding her enfeebled condition and great age good union took place in two months.

William B——, aged 48, June 30th, 1872, while walking on the track, was struck by a locomotive, receiving a fracture of the middle third of the humerus; although every care was given him, union failed to take place, from causes beyond my control. As he would not allow me to operate, I obtained for him Dr. H. H. Smith's apparatus for ununited fracture, enabling him to use the arm somewhat. Le Gros Clark has said non-union does take place sometimes without apparent or assignable cause.

Edward B——, aged 30, came under my care February 10th, 1872, with simple fracture of the arm below the middle third, caused by direct violence. Treated as mentioned above, with good union in four weeks.

August 11th, 1873, Annie B——, aged 25, fracture of middle third of left humerus. Similar treatment; splints removed in three weeks, showing good union; arm retained in a sling for a week longer as a precaution.

August 23d, 1873, Mr. I——, aged 37, received severe injuries by having the wheels of a heavy carriage pass over his left arm. The humerus was broken transversely above the middle third, and again just above the condyles, the intervening portion being movable. As the soft parts were much contused and swollen, I loosely applied an external moulded dish-splint to coaptate the parts. Allowed no pressure, and placed or supported the arm on pillows, it being uncertain for a time whether or not amputation would be resorted to. After a week or so when danger had subsided and callus had partly joined the fragments, I dressed the arm in the usual way. In two months he had every use of it, with little apparent deformity, except thickening at points of union. It is now as strong and useful as the other. This case was sent me by Dr. A. Lippe.

December 12th, 1871, Dr. J. R. Earheart sent a boy, aged 13,

to me with separation of the internal epicondyle caused by muscular violence. The joint was greatly swollen, and somewhat stiff and painful on motion. The small fragment of bone was drawn half an inch downwards, and lay rather towards the front of the joint. Flexing the forearm at an angle of seventy-five degrees, I applied a concave wooden splint to the anterior surface of the arm, and another to the forearm; these joined at the elbow by a hinge. The angle could be regulated by a screw of much shorter compass than Rose's splint, and known here as Stromeyer's. Change of angle was made daily without disturbing the bandages, the edge of the splints in front of the joint serving to confine the fragment in position, while preventing stiffness. The whole was well padded and supported by a handkerchief sling. This apparatus permits the joint itself to go unbandaged; there is no necessity for repeated change of dressing; it takes off pressure and allows constant inspection while admitting of motion. It is essential, of course, to have splints of various sizes for different ages. The result in this case was excellent use without inconvenience.

In the case of Mrs. C——, aged 35, December 7th, 1871, there was fracture at the base, and with what I made out to be complete separation of the internal condyle. I could not discover a separation of the external, although such may have been the case by a break through the joint. The swelling was great, and the least movement caused agony. The injury was direct, and the force applied to the elbow. In a few days I was enabled to apply a splint as in the preceding, and with restoration of good motion.

John McK——, aged 8, October 16th, 1874, fell from an awning-post to the pavement, striking his elbow and sustaining a fracture of the internal condyle through the joint. The fragment was felt distinctly movable on working the forearm, causing very slight deformity. Much pain and crepitus on giving the fragment a rocking motion. He was treated as in the two preceding cases with recovery of movement through a radius of sixty degrees.

Fracture of the external condyle involving the joint, with some displacement of the radius backwards, happened a son of W. A. C——, aged 8, May 15th, 1874. I treated it by movable

angular splints, with most gratifying results, the child having excellent and free use of the elbow. Seen with Dr. Thomas Moore, of Germantown.

I omit the remaining cases on record, which are either simple fractures of the shaft, or a repetition of those already mentioned, with similar treatment and having nothing in them worthy of special notice.

XV.

FRACTURES OF THE FEMUR.

By J. H. McClelland, M.D., Pittsburg, Pa.

In papers already presented to the Institute by members of this bureau, the general subject of fractures, as relating to their repair, union, etc., has received sufficient consideration. It will, therefore, be my humble endeavor to discuss *fractures of the femur*, with specific reference to the most approved and simple methods of treatment, so far as observation and research have enabled me to judge.

GENERAL CONSIDERATIONS.

Much care is necessary at times to prevent the fragments from penetrating the integument, and rendering the fracture compound, complicating the case immeasurably. Having this in view, especial caution is needed in removing the clothing and placing the patient in bed. The latter should consist of a hair mattress laid upon slats, or some convenient form of fracture-bed. The simplest and perhaps the best form of fracture-bed is made by constructing a frame which can be laid upon a common cot, resting upon the head and foot-boards. Upon this is stretched heavy canvas, with an opening for the purpose of defecation. This opening may be closed with a cushion from beneath. The fracture-bed is, however, not so essential as formerly, owing to the frequent use of the movable immovable methods of treatment.

The attachment of powerful muscles, and the difficulty of securing immobility in portions of the bone, strongly predispose to deformity; yet it is remarkable what admirable results may

be obtained by the use of the most simple means, well adapted and properly applied.

Both joints, hip and knee, should be rendered immovable, the better to avoid deformity and delayed union. Erichsen lays much stress upon this point, and I have seen it to be one of practical importance. Another point worthy of consideration is the application of the primary bandage. In its application it is liable to disturb the parts greatly, produce laceration, and is really unnecessary. In my paper on fractures of the leg, it is remarked:* "When the fracture is of a character to give a great deal of pain in applying the first bandage, I have padded the splints, and applied them directly to the leg, thus keeping the fragments from moving, while a layer of bandage is now applied." I believe this should be the rule and not the exception. Gross still maintains the propriety of the primary bandage for the purpose of quieting muscular spasm.†

With regard to removing dressings, many differ. Perfect immobility, it is reasonable to suppose, will predispose to rapid union, and the daily disturbance of a fracture, especially in its early progress toward union, with rubbing, cold shower-baths, etc., as recommended in some quarters,‡ seems unnecessary and injurious; yet there are cases where the occasional (say once a week) removal of the apparatus, with careful washing of the limb—especially if there is no primary bandage to be taken off and reapplied—is productive of good, and gives opportunity for inspection. Compound fractures of necessity require daily dressings, so far as the wound is concerned; but it is even more essential to secure continued immobility than in simple fractures.

FRACTURES OF THE PELVIC END OF THE FEMUR.

Fractures of the femoral cervix have furnished opportunity for almost endless polemics.

Union or non-union, straight position or flexed, intracapsular

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* McClelland, "Fractures of the Leg," Transac. Am. Ins. Hom., 1874, p. 495.

† System of Surgery, vol. i, p. 865.

‡ Cincinnati Medical Advance, vol. iii, June, 1875, p. 75.

and extracapsular, have furnished themes upon which men have fought while patients have bled, or at least suffered.

As having a bearing upon the treatment to be adopted, I ask attention to the classification of these fractures. A sufficiently ancient standard, Sir Astley Cooper, gives the following:*

"*First.* That in which the fracture happens through the neck of the bone, entirely within the capsular ligament.

"*Second.* A fracture external to the ligament, through the neck of the thigh-bone, at its junction with the trochanter major, by which the trochanter is split, and the neck of the thigh-bone is received into its cancelli. This is often part within and part without the capsular ligament.

"*Third.* A fracture through the trochanter major below its junction with the cervix femoris.

"Besides these, fracture of the trochanter major and fracture of the shaft of the femur, just below the trochanters."

I find the following well-known authorities differ but slightly from the above: Amesbury,† Malgaigne,‡ Gross,§ Erichsen,‖ Hamilton,¶ Helmuth,** Franklin,†† and Holmes.‡‡

Recently, Bigelow‖‖ has adopted a classification which he explains as follows:

"In lecturing upon this subject, I have been in the habit of dividing the injuries of the neck of the femur into the impacted fracture of the base of the neck, and the unimpacted fracture of the rest of the neck, without regard to the capsule."

He thus rests upon the existence or non-existence of impaction, and leaves the capsular ligament out of the question.

As intended by Bigelow, this to some extent does simplify the matter; but I have thought it well to venture the following as

* Cooper on Fractures and Dislocations, last edition, p. 113.
† Amesbury on Fractures, London, 1828, p. 2.
‡ Malgaigne's Fractures, p. 530.
§ System of Surgery, vol. i.
‖ Erichsen's Science and Art, vol. i, p. 866.
¶ Hamilton's Fractures and Dislocations, p. 348.
** Helmuth's Surgery, p. 685.
†† Franklin's Surgery, vol. ii.
‡‡ Holmes's Surgery, vol. ii, p. 488.
‖‖ The Hip, H. J. Bigelow, M.D., p. 126.

a practical classification, differing little from others, yet having, it may be, a more direct relation to the character, treatment, and result of these fractures:

1st. Fractures of the neck (always intracapsular).

2d. Fractures involving the trochanters (always extracapsular).

Of course, a given case may possess features of both varieties, but in proportion as a fracture extends outside of the capsule will it partake of the character and results of that variety.

From the anatomy of the parts and the location of such fractures of the neck as have been observed, it would appear to me that almost without exception these fractures must occur within the capsule.

On the other hand it seems equally clear that if the fracture is external to the capsule it must involve the trochanters.

Erichsen, in speaking of extracapsular fractures, says:* "Indeed I have never seen a case in which the great trochanter was not either detached or splintered into several fragments."

This division is practically useful, because we will understand *fracture of the neck* to mean intracapsular fracture, having *its* distinctive characteristics of cause, symptoms, course, treatment, and result, viz.: in non-union (as a rule); while by *trochanteric fractures* we mean extracapsular, more or less involving the trochanters, and attended by a different set of symptoms, running a different course and usually having a different termination, viz., a union by bone.

The fractures known as extracapsular, as impacted fractures of the neck, as fractures through and of the trochanters, having all essentially the same treatment and result, may properly be classified under one head.

The first variety is generally *not* impacted, while the second as a rule *is*.

FRACTURES OF THE NECK.

This fracture with few exceptions occurs in the aged, and has rarely been observed under the age of 50.

It is caused by a slight fall, at times of but a few inches, the

* Erichsen's Surgery, p. 370.

weight coming upon the foot or knee. It may be occasioned by tripping upon the carpet, or may result exceptionally from a direct blow in front of the trochanter.

It can only be compound when the result of direct force.

The limb is everted (usually), is shortened one or two inches (which may be readily overcome), and gives pain upon being moved. There is often soreness and swelling in the groin. Crepitus is difficult to obtain, but should be sought by first drawing down the limb, and then rotating while gentle pressure is made at the trochanters.

If crepitus cannot be thus obtained, for the reason that the fragments do not come in apposition, I would suggest that the hands be passed high up between the thighs and that gentle extension *outwards* be made, while at the same time the limb is drawn down. This manœuvre may be successful in bringing the fractured surfaces in apposition. It will be observed when rotation is made that it occurs upon the axis of the femur, and does not describe the arc of a circle as in the sound limb.

These symptoms are sufficient to characterize the injury, and it is not advisable nor even safe to subject the parts to undue manipulation; much injury has been done in this way.

As there is a possibility of union, strengthened if any degree of impaction exists, it is well to give the patient the benefit of the doubt. Sir Astley Cooper's advice, therefore, to make no extended attempt at obtaining union, should not be strictly followed.

Usually the subjects of these fractures, the aged, are quite willing to submit to confinement for at least a time.

When feasible, these persons should be placed upon a fracture-bed such as described. The weight of testimony is in favor of the straight position, although Amesbury and many others subsequently have advanced excellent arguments in favor of the flexed position.

The methods of treatment best adapted to these cases are:

First. Some form of long splint, essentially Hagedorn's or one of its modifications.

Second. Extension by weight and pulley made available by adhesive strips to the sides of the legs, together with junk-bags

to give support and prevent exertion. The manner of applying these will be described when treating of trochanteric fractures.

If after two or three months there is no appearance of union, the shortening is more marked, indicating non-apposition of the fragments, and even sooner than this if the patient's health fails, the treatment may be modified or abandoned in order to afford exercise and change.

Many of these aged sufferers gradually sink under the combined effects of shock and confinement.

TROCHANTERIC FRACTURES.

This fracture, although often occurring in aged persons, is not by any means exclusively a fracture of the aged.

Its most prolific cause is a fall directly upon the hip. Severe pain is generally complained of, although, as in two cases which I will report, the patient may be able to walk some distance after the injury. This is of course owing to the impaction. There is not necessarily much shortening, but generally considerable eversion. Upon rotating the limb, unless exceptionally, the trochanter is found to describe the arc of a circle, as in the sound limb.

These symptoms are sufficient to describe the nature of the case, and where crepitus cannot be obtained, it is judicious to make no further diagnostic efforts at the risk of disturbing an impaction. In fracture of the trochanter major alone, there is of course no shortening, and the diagnosis is at times quite obscure. Crepitus may be recognized by flexing and carrying the limb outward, then grasping the fragment, bringing it down, and rotating the leg.

The treatment of this whole class of extracapsular or *trochanteric* fractures may be instituted with cheering prospect of bony union, and to save repetition I will illustrate the main points by a reference to the following cases:

CASES I AND II.—This is a most interesting pair of cases, occurring in the same individual, though at different times.

Stephen N., æt. 71, native of America, large, fleshy, or rather *fat*, because he imbibed large quantities of alcoholic beverages. August 25th, 1870, in walking across the room, he tripped on

some object and fell on his right hip, bruising his knee somewhat at the same time. He got to bed with some assistance, and referred his suffering entirely to his knee. He was able to sit up in an easy chair every day, and it was only at the end of a week that he called Dr. W. R. Childs, who investigated the injury at the hip, by this time becoming quite painful. I saw the case with the Doctor the next day and a number of times subsequently. Placing him under chloroform, a careful examination was made. The leg was but half an inch short, was everted, and was in a measure helpless. No crepitus could be discovered, and all the motions of the joint could be induced. Diagnosis, impacted trochanteric fracture.

Two long splints were made, extending from the axilla below the feet, to which a footboard was attached (essentially Gibson's Hagedorn). To the edge of these splints, heavy canvas was tacked after the manner of a stretcher, and in this an opening was made for purposes of defecation.

Several broad strips of muslin were now passed around the apparatus, binding it firmly to the body. This arrangement was quite comfortable; but at the end of five weeks, becoming extremely tired and restless, he was liberated and lifted into an easy chair every day.

At the end of ten weeks he made efforts at walking on crutches, and from this time gradually acquired the use of the limb. The shortening also gradually increased to an inch and a half.

On October 16th, 1873, about three years subsequent to the above, the second accident occurred. While on the way to his hotel, he slipped upon the pavement and fell upon his left hip. He got up, and with the aid of his cane reached his hotel, several squares off. He experienced some pain, but the next day walked around considerably, and the day following sent for me. I found the parts quite painful, but all of the motions could be made. There was slight eversion, and, I thought, a little shortening; no crepitus. Concluding that if fracture existed it was thoroughly impacted, I required him to lie in bed, the leg resting upon pillows, instituting no other treatment. Becoming soon restless, and thinking that as he had walked upon the limb it would not be easy to disturb the fragments, I permitted him to

be daily transferred to an easy chair. For three or four months he made no attempt to walk, his great weight and constant imbibitions rendering him indisposed to exertion. By this time the shortening was equal to the other limb, namely, an inch and a half. He finally got to using crutches with assistance, but in the following August died, about ten months after the injury.

I obtained the specimens, which I consider extremely valuable, and present them for the inspection of the Institute to-day.

It will be observed the fractures are quite similar, although the fragments are much more separated in the second (the left) than in the first. It will be found that the head, neck and trochanter major constitute one fragment, the trochanter minor with a portion of the shaft another fragment, and the shaft of the bone driven up between them the third.

The first case (right) exhibits less displacement. It is more nearly what is described as an extracapsular fracture of the neck. The neck is driven into the trochanters, separating them and the shaft.

It is somewhat remarkable, with such sharp fragments of bone, that the patient was enabled to walk; and further, that, considering the age and habits, so good a union has resulted. This first specimen illustrates quite well Bigelow's explanation of the cause of eversion.

These cases also illustrate the necessity for careful diagnosis, as some of the prominent symptoms of fracture were entirely wanting.

CASE III.—Mrs. J., æt. 71, on the 14th of February, 1871, in coming down stairs, when at the last step, fell with her whole weight upon the left hip. She was carried helpless to bed. Two physicians of the old school were called, who said the bone was broken and that nothing could be done; they, however, gave her a dose of oil, and left. One week later, Dr. J. C. Burgher was called, and the day following I went with him, in counsel. We found complete helplessness, great pain at the joint, eversion, no crepitus, and but half an inch shortening. Diagnosis, impacted fracture through the trochanters.

We applied a bandage, from the toes up on account of the swelling, and used Day's long splint, with junk-bags to steady

the limb. She remained in bed eight weeks, and in another month began to use crutches. In the course of a year she could walk perfectly well, and the shortening was but little increased.

CASE IV.—Mrs. L., æt. 73, July 30th, 1872. This accident occurred in a manner precisely similar to the preceding case, and with a similar result.

The patient was placed upon a fracture-bed, made, as hitherto described, with canvas upon a frame. The long splint was used, and in about eight weeks the patient was able to leave the bed and make cautious use of the crutches. She rapidly recovered, with full use of the limb, and three-fourths of an inch shortening.

CASE V.—Mrs. W., æt. 44, March 12th, 1875, fell on the slippery sidewalk, upon her right hip. Dr. L. H. Willard saw the case within an hour, and called me in counsel shortly afterwards. The limb was helpless, painful at the hip, everted, and but half an inch short. Rotation developed no crepitus. Diagnosis, impacted fracture of the neck. She was placed upon the same form of fracture-bed. Extension was made by adhesive strips to the leg, by which a weight was suspended, and the leg was supported by junk-bags. In nine weeks the patient was moving about on crutches with less than an inch shortening.

Fractures of the Shaft.—These fractures may be divided into fractures just below the trochanters, fractures in the continuity of the shaft, and fractures involving the condyles. The middle third is oftenest broken, and in the oblique direction.

The diagnosis is usually clear. Fractures of the upper end give trouble from the pronounced tendency of the superior fragment to displacement forward and outward. Erichsen* has proven that this upward tendency is due to the action of the psoas and iliacus, while the outward is occasioned by the external rotators.

It would seem natural to suppose that the flexed position is the one best calculated to relax these muscles. Amesbury† strenuously insisted upon it, and many later. Potts flexed the leg and laid it upon its outside. Practically it has been shown

* Surgery, pp. 873-4. † Amesbury on Fractures, p. 165, *et seq.*

that in nearly all of these cases the straight position has proven best, although I am by no means of the opinion that in every case this is so.

The use of N. R. Smith's splint has been followed by some admirable results; and Addinell Hewson, in a recent lecture,* has gone into the mechanics of the thing to show that it is based upon the most correct principles, and illustrates its usefulness by examples in practice.

An objection to the flexed position has been urged by Hamilton and others that sufficient extending force cannot be exerted, but I would suggest the overcoming of this by the use of the single inclined plane (as in some fractures of the patella), and extension by weights as in the straight position. This would, in fact, combine the straight and flexed. The means I have most used are the long splint, which is, perhaps, best described by Hamilton, and the extension by weight applied by adhesive strips to the leg. I would urge that the adhesive strips be carried above the knee some distance, in order to avoid the strain upon the knee-joint. The limb is further to be supported by pasteboard splints to the thigh, and junk-bags from the hip down *below* the foot.

Fractures of the lower third have done exceedingly well by the starch and plaster bandages, permitting the patient to be about on crutches in a few days.

Fractures of the condyles, especially between them and into the joint, are necessarily serious. At best the joint is likely to be stiff. I have twice endeavored to save the limb (once by exsection) when the fracture was compound, but in each instance was forced to subsequent amputation. The straight (or nearly so) position is to be preferred. The starch bandage answers admirably when the fracture is not compound, in which case the fracture-box, in connection with extension by adhesive strips, is excellent. I have found that a long splint, well padded and made fast to the limb by a succession of adhesive strips, has secured immobility perfectly, and admitted of frequent dressings and constant surveillance.

* Phila. Med. and Surg. Reporter, June 12th, 1875.

XVI.

FRACTURES OF THE FOOT.

By J. H. McClelland, M.D., Pittsburg, Pa.

At the request of the chairman of the Bureau I have prepared a brief paper on fractures of the foot, in addition to my proper contribution for the year. This is done in order to complete the subject of fractures as undertaken by the Bureau.

We have to consider in this connection *fractures of the tarsal bones, fractures of the metatarsal bones,* and *fractures of the phalanges.*

TARSAL BONES.

Chiefly the astragalus and os calcis, as the smaller bones are rarely broken except by such crushing force as destroys also the soft parts and necessitates amputation. Indeed this latter not infrequently becomes necessary in fractures of the two bones mentioned.

The relation between the brain symptoms which at times supervene and these fractures consists, probably, in the character of the force producing the injury, namely, a fall upon the foot by which severe jar or concussion is sustained. Then, too, a crushing of the foot is liable to be followed by symptoms of tetanus, owing to the injury received by the nerves with which it is so liberally supplied, as in the hand.

The *astragalus* is seldom broken, even when the foot is crushed, owing to its protected position. When fractured it is usually by a fall upon the foot. It may be either longitudinal or perpendicular, and in certain instances is complicated with fracture of

the tibia or dislocation of the fibula, in which cases they are likely to be compound.

The distinctive symptoms of fracture are difficult to obtain in these cases, when simple, although crepitus may be recognized before the swelling becomes excessive. There is more or less pain almost always. Deformity is unusual.

The *os calcis* is more subject to fracture than the above. Causes are, falls sustained by the foot, crushing weights or the passage of a wheel, and lastly muscular action through the medium of the tendo Achillis. This latter fracture consists essentially of the tuberosity only, which is likely to be drawn up by the action of the muscles; with this exception there is little displacement or deformity in fractures of this bone. The arch of the foot, however, suffers impairment.

Fractures of the calcaneum are more readily recognized than those of the astragalus, and chiefly by the crepitus.

Treatment.

In the treatment of these cases I would recommend as a rule, the use of splints or other retaining apparatus, although aware that many surgeons consider them unnecessary.

It is not that these means are required to keep the fragments in position (although in exceptional cases they are), but for the purpose of giving security to the parts and rendering them immovable, placing them in a condition most favorable to union, and least liable to inflammatory action.

Measures should always be taken to first reduce the swelling and relieve the pain, mainly by Aconite, Arnica, Bell. and Bryonia. There is nearly always relief given by bathing with a weak aqueous solution of Arnica. The splint used should be after the manner of Pott's, should include the foot and leg, but not the knee, or an anterior splint of binder's board, tin, leather, or such like. An excellent splint is made by taking a Day's leg splint and having a strip of zinc riveted to its posterior margin in a manner to afford support to the calf of the leg, heel, and sole of the foot. This is especially good in compound fractures involving either of the malleoli, and is then best retained by a succes-

sion of adhesive strips, leaving the wound uncovered for drainage and inspection.

When there is not much swelling, or the swelling has subsided, a starch or plaster bandage is much the best dressing, and allows the patient immediate use of crutches.

In fractures of the calcaneal tuberosity, in which the fragment is drawn up by the tendo Achillis, a bandage should be applied to the leg, with suitable compresses to induce apposition of the fragments, and the leg then flexed upon the thigh, thus to be retained by a slipper with tape attached to the heel, and further secured to the thigh as usual in rupture of the tendo Achillis.

In the more common fractures of the calcaneum, care should be taken to restore the arch as nearly as possible, and to so retain it.

Union in these cases usually occurs without much deformity, although patients rarely walk upon the foot comfortably short of six months, and should be cautioned against too soon bearing weight upon the foot.

In fractures of the astragalus, especially, passive motion should be early introduced.

It is considered a good rule to remove fragments that are at all loose at once.

As before remarked, fractures of these bones, especially the smaller ones, are often accompanied by injuries of the soft parts to such an extent as to admit of nothing short of amputation, and may not infrequently lead to loss of life.

THE METATARSAL BONES.

Fractures of these bones occur nearly always in consequence of direct violence, as the passage over the foot of a heavy wheel, or the falling upon it of a weight. There is usually considerable pain and swelling as a consequence; not much displacement unless several of the bones are broken; crepitus easily discovered before the swelling is too great.

Treatment.

Means will first be employed to reduce the swelling, as a

lotion of arnicated water, or if compound a weak solution of Calendula.

When the fracture is simple a splint may be applied to plantar or dorsal surface, or better, if there is no swelling, the plaster or starch bandage.

In compound cases that do not necessitate amputation, a splint may be applied and secured with adhesive strips to the surface remaining unimpaired. This will permit of dressings of oakum, etc.

Fractures of these bones usually unite in from four to six weeks.

THE PHALANGES.

Cause of fracture nearly always the same as the preceding, and the diagnosis easy.

When the distal phalanges of the small toes are injured it is generally best to amputate at once. With the great toe more effort may be made to save it.

A very good way to keep the fragments in position is to wrap the toe with a few turns of adhesive plaster, adding perhaps a small piece of binder's board.

In many cases it is much more comfortable, with less liability to disturbance of the injured bone in moving about, to adapt a thin splint to the plantar or dorsal surface of the foot extending beyond the toes, and in this way to protect the injured member.

These fractures unite without difficulty, although at times with some degree of deformity.

SECTION VIII.

REPORT

OF THE

BUREAU OF PSYCHOLOGICAL MEDICINE,

HENRY R. STILES, M.D., ... Middletown, N. Y.
GEORGE W. SWAZEY, M.D., ... Springfield, Mass.
GEORGE F. FOOTE, M.D., ... Stamford, Conn.
T. L. BROWN, M.D., ... Binghamton, N.Y.
SAMUEL WORCESTER, M.D., ... Burlington, Vt.
J. H. P. FROST, M.D., ... Danville, Pa.
T. DWIGHT STOW, M.D., ... Fall River, Mass.
J. B. HUNT, M.D., ... Indianapolis, Ind.

TO THE

TWENTY-EIGHTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME I. NUMBER 4.

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X.

HEALTH IN THOUGHT.

By T. L. Brown, M.D., Binghamton, N. Y.

"Know that which before us lies in daily life is the prime wisdom."—Milton.

Sanity is the ideal wholeness of the perception and conception of the real. Full power to think and act correctly.

In whatever degree we may fall short of distinct appreciation of what is, in a similar ratio we are insane and unhealthy in mind.

Want of correct consciousness is the morbid mental condition of those who most need educational and psychological treatment.

To remove the morbid thoughts of the insane by the homœopathic method, the law of *similia* must not be ignored in the selection of any force as a therapeutic agent.

The therapeutics of thought has not been fairly tested independent of the Materia Medica remedies.

Its just appreciation has not attained the dignity and position its usefulness demands.

A false thought is the sure sign of mental disease, while a true one is the best evidence of mental health.

Insane ideas are mental efforts not under the control of fact and reality, and often are the results of false teaching and physical disease of the brain and nervous system.

Under the law of heredity, some persons are as sure to become possessed of insane ideas as they are to live to a certain age.

In all cases of mental disease the existing physical causes

must be removed before the therapeutics of either an idea or a drug remedy can be fairly tested.

Taking the patient to a properly conducted asylum will often remove many of the objective surroundings which cause insanity.

The quiet, sleep, rest, proper food, equal temperature, cleanliness, and pleasant guidance commence the cure.

The unhealthy thoughts which physicians and attendants have manifested by their inhuman and brutal treatment of the insane, shows the necessity of establishing healthier ideas in the profession.

The "stream will never rise higher than the fountain."

To maintain healthy and useful thought, we must confine our efforts to the real, the available, and the practical.

Those whom we count insane are attempting impossibilities, dealing in ideal fancies, speculations and false representations.

In fact the thought-impression which most completely represents the truth of things is healthy and sane, while the opposite is unhealthy and fairly represents insanity.

To possess the former and avoid the latter is the worthy and faithful labor of life, and should be the highest aim of that branch of medicine named psychological.

Without healthy and correct sensation we cannot receive truthful impressions or possess one idea of the real.

The knowledge and practice of physiology would seem the important means necessary to obtain and retain precise and useful mental health.

A proper course of cure would then reasonably lie in a return to the practice of physiological truths.

At no time should drugs be trusted to accomplish what air, water, food, exercise, sleep and consequent change of thought alone can do.

Healthy thought is the legitimate result of living in harmony and full compliance with the teachings of physiology.

Habits of undivided attention to the present moment and its lessons of reality are the only means of receiving accurate ideas.

The mysterious connection of mind and matter is yet far beyond our comprehension, though we have learned how to a certain degree to keep them under daily investigation.

As physicians our usefulness and success depend upon three important acquirements.

1st. We must possess healthy conceptions of diseased conditions and their causes.

2d. We must have the necessary knowledge of the means of cure.

3d. And not least we must have the ability to control our patients in such a manner that our ideas of a cure will be carried into effect.

Unless we be able to thus practice our art, our success and usefulness will not reach a high standard, or can we in a true sense be styled physicians.

In this view health in thought finds its true value and best application by the profession.

Physicians can cure with well-administered thought quite as certainly as with the eternal dose of medicine.

And thought-influence can be dispensed as nearly in accord with the great law of homœopathy as any drug poison.

Our words and manner in the presence of our patients have often more to do with their recovery than the drug remedies administered.

The displacement of morbid ideas and depressing thoughts can be accomplished only by implicit obedience to the physiological laws of the mind.

Change the organic condition of brain and nervous system, and the mind-force will be in a like degree modified.

Thought cannot be so separated from the organism that the one can be manifest without the aid of the other.

Psychological medicine is the real foundation of all the known means of cure. Every effort to treat the sick is but carrying into effect some idea we have concluded is best in the case.

First the thought, then its timely application, or health and thought could never have a conscious relation.

Healthy thought is the real therapeutic guide to a cure.

When our worthy friend Dr. T. F. Allen shall have completed his *Encyclopedia of Pure Materia Medica*, then we will have his and other psychological efforts in a form by which we can the more certainly test the therapeutics of drug agents in the treatment of the insane.

We are one of the number who have observed that some homœopathic physicians are at times insane on the power of remedies to cure, when an idea from physiology or hygiene would have restored the patient.

A proper therapeutic agent is often the precise idea of how to use air, water, food and social relations, when a drug in any form would not answer as a substitute.

The wisdom and the skill of the physician consist in having the right thought and the ability to use it at the most needed moment.

To dictate what this psychological bureau must say or do is quite foreign to the law of development or progress, and would of necessity prevent the real object of its existence.

Therefore, wherever there is health in thought either for the physician or his patient it is best to record it and show its importance over theories, fancies and dreams.

Too much of fancy and empirical thought is still practiced by some of our school, to the exclusion of more solid ideas based alone upon demonstrated results.

Every practical thought advanced in this Institute is the real property of psychological medicine as one of the evidences of the value of health in thought as a therapeutic agent.

Vagueness, and theories born of ignorance and speculation, should find no place in a brain where available thought adapted to daily use at the bedside can be realized.

Without practical and useful thought sanity is a word destitute of meaning, and insanity becomes univeral.

An accurate idea is founded on precision and is the truthful perception of a reality.

The insane need physical treatment according to the laws of hygiene and physiology before they are fitted to receive more sane ideas.

Health in thought is not fully reached until a certain healthy condition of brain-substance be again established.

Upon a healthy physical basis alone rests a healthy mental.

First the gray cell-substance of the brain, then the mind.

When the gray cell loses its force and continuity, in a like degree will we find exact thought impaired.

Our physical and mental tendencies are subject mainly to our heritage, yet we have it in our power to improve on the best of such conditions.

All mental impressions are the result of brain-conditions forced into activity by the natural influence of our sense-education imparted by material and phenomenal forces.

With a class of patients in whom depressing thoughts disturb nutrition, circulation, secretion and sleep, a change of ideas is all-important.

With them no remedy can properly take the place of the therapeutics of better thoughts.

The occasion and origin of the depressing ideas must be made known to the physician in order to present the curative thought in the most effectual manner.

The really curative power of thought lies in the fact that a stronger idea can when timely presented remove a weaker one.

The ruling motive idea is the most potent in controlling human action.

Some physicians have great power to change the character of thought in their patients from sad to gay, from fear to trust, and at once commence a curative action long before a drug had been given.

Who can decide how much more the cure depends upon the change of thought than upon the remedy administered? As in alternation of remedies, discrimination is quite impossible.

The day is coming when we shall have experience and observation which will accurately determine the real energy of cure.

Disease and death are oftener produced by grief, fear, anger and disappointment than physicians commonly observe or understand.

A young man under my care had quite recovered from a typhoid fever and was able to be about the house, with all signs of a timely return to ordinary health. Certain circumstances brought about an angry dispute between him and one of his associates, and within an hour he passed into a state of delirium that ended in death in less than forty-eight hours. No other cause could be found in his case capable of producing such a sad result.

Recall those families wherein grief, fright or anger hold frequent periods of control, and enumerate the diseases resulting,

and if possible determine which would cure most effectually, the influence of thought or remedies chosen from the Materia Medica.

Thought-substitution is a potent therapeutic agent, and no other means can take its place as successfully.

Study the mental habits of the patient, and frequently we will find that a certain train of ideas keeps active the physical disease most difficult to remove.

Labor of a useful and remunerative character cures many cases of insanity in the very commencement of the disease, while idleness would carry them into incurable conditions. By such labor new and better thoughts are put into the brain in place of the morbid ones.

A truly successful physician uses all the collateral aids in the contemporary sciences to cure his patient, and is not so bigoted as to call his work homœopathic, allopathic or hydropathic merely from the fact that he belongs for the sake of association to any one school of medicine.

The ultimatum of medical and curative influences has not yet been reached.

Mental liberty in the choice and daily use of all available means to cure the sick is not as yet the most popular and distinctive guide of the zealots of law or creed.

Thought cannot be authoritatively controlled by any medical school or party.

Arbitrary authority has lost its power over medical evolution, and the individual mind seeks the truth without the fear-clog of excommunication.

The fear of offending the zealous adherents of some law or creed in medicine, does not suppress experience or the facts known to a true physician who really holds the health of his patient as the most worthy object of pursuit.

Pleasant thoughts prevent disease and promote health.

Mental and physical health is the great qualification for usefulness and enjoyment.

Without it what is life but a sad failure, a weary and imperfect consciousness?

Individual thought is the eye of existence, the most potent of the psychological curative agents.

XI.

WHERE THE MANY WAYS MAY MEET.

By G. W. Swazey, M.D., Springfield, Mass.

Some men think so much of the evidence of the senses, that they are only fully satisfied with what can be brought to this test, and they are not much inclined to inquire about those things which lie beyond this kind of demonstration.

There are others whose desire to know is never *fully* met, even with all that demonstrative science has to offer. Now the man of our profession who admits facts of a psychical character in general, goes not beyond the scope of a sensuous philosophy, perhaps; but he who welcomes an independent psychic force to the list of remedial means, or agents, must belong to the latter class; he belongs with those whose minds are always open to all and any species of investigation concerning this most abstruse agency.

These two classes are not necessarily at variance in their intentions, though they are often found striving with each other, from the prejudices of education, or with vacillating opinions as to which is the subjective part of our being. Sometimes the man seems to be from the earth, earthy, and at others from heaven, heavenly.

This naturally arises from too high claims being made upon men disposed to a low estimate of the mind-force formed from their own experience, or from speculative views being urged upon men of a narrowing and cautious turn concerning any man's psycho-physical endowments. An expression of confidence or faith in some of the apparent results of mental opera-

tions, which we admit can never be manifested to a man except through his sensory system, too often provokes opposition from that materialistic sentiment which marks the drift of the great medical profession, and perhaps shades the dial of our advancing science of homœopathy.

But whether such issues will for awhile hinder, or whether they will stimulate inquiry into the alleged superiority of our system of therapeutics; whether they will help to advance the public mind to a better estimate of the mind-force, or stay that investigation to which all true science invites its votaries, is especially a problem of the age in which we live.

Popular materialism may well captivate us with new and beautiful facts concerning the wave motion which points back to the prime efforts of teeming nature, concerning protoplasm or bioplasm, and carry us along the more trodden way of cell-germs to molecules and manifested life; and still onward by some soul-found (soul-less?) force to the compacted energy of the full man, claiming to demonstrate from the whole historic past an evolution upwards; but does it not tend to discourage the drift of thought which would break through these narrow confines to discover and bring down a celestial light upon the unquestioned facts concerning our life as we find it?

How by its aid can we bring up, from the deep wells of our interior consciousness, the known power of known facts bearing upon the psychic elements of our being? Or how will it graft upon such parent stock the undisputed qualities of the intellectual and aspiring mind? Rather, is not the parent stock mind from the beginning, and the evolution downwards?

But whatever we may think concerning matter or mind, or the relation of the one to the other, the important and practical truth is that, as physicians, we are obliged to deal with them in their abnormal states, and the value of such knowledge as may enable us to reach and control these conditions together or apart (if that were possible) we think cannot be overrated.

This kind of knowledge and this kind of power, independent of the use of medicines or appliances, is properly denominated psychological, and the cures as well as the causes of diseases which depend altogether or in part upon the action of the mind,

belong to the psychological department of medicine, no specific quality of any drug being included, or at all intended, not even those which might produce mental symptoms; in which case, however, by their use, psychology has nothing to lose, and in the present state of society her advocate the physician has much to gain, and at the same time finds herein the better fitness of his professional work and his own fitness for it.

In this realm of life, where mind with its emotions and passions holds such regal sway, it seems as if all doctors and systems of practical medicine might meet.

In truth they *must* meet here, and here should they ground their arms; but if it must remain the arena of strife, it is a matter of laudable ambition that this Institute of Homœopathy is well in the field of inquiry and observation.

The other day, on receiving a catalogue, as doctors often do, from a large dealer in medical works, my eye followed along the attractive list of titles, apparently presenting all that a craving student could desire. It was a showy card of medical literature, depicting, discussing, and describing all manner of diseases and the ways of curing them. Title after title of the books, as if the medical vocabulary would run short of names, increased a natural longing for a deeper insight into these tomes of a "liberal" science.

Page after page was turned in looking for something savoring the look or spirit of our new school, but in vain. Fifty years of good and regular standing (outside, of course) had entitled us to no place in that parade of scholastic lore; but near the foot of the list appeared a single "psychologic" author, and he with the sterling value of his work vouched for. This volume, said the authority, is upon "the influence of mind in causing diseases, as well as its effect in curing them, so frequently employed successfully in systems of quackery." This book alone represented that department in a choice library of allopathic literature, *vox et prœterea nihil.*

The incautious admission of its being *successfully* as well as frequently employed would seem to turn back the intended point of that sarcasm, and rather stimulate the desire to know more of its "successes."

There are now, as there always was, many ways of healing the sick, and whether the desired cure comes about, in any given case, without adequate laws by which the functions operate upon one another to produce the result, is a vital question. If by laws, what are they? If by no laws, what are *we?* Common observation teaches us that the sick are often cured in a way for which they cannot thank the doctors, without any kind or degree of medicine to be thankful for.

Has nature alone done the work? Then let us investigate her royal way. Has the doctor been in *any* way tributary to the result in such a case? Then let him consider how much the enjoyment which the sick man found in his professional *presence might* have had to do with it.

All doctors of all schools are continually witnessing in their patients the flow and the ebb, the waxing and the waning, of the feelings and sensations which they can only account for by attention to the mental forces, felt by them sometimes from within and sometimes from without, and so as we manage these we put in use our psychic force; and this is an outside and imperfect view of psychological medicine.

Now, why should not all the ways meet on this common ground, and all who feel called to the God-like work of healing, do as good homœopathists aim to do, and learn by degrees to discard crude and poisonous doses, and to recognize the safer means which God and nature has thus put into our hands?

Alas for true science, when the prejudices of education, and the dogmatism of the schools, and the cupidity of men, and the pride of power so oppress and stifle the spirit of inquiry, that the medical profession cannot think and breathe freely.

But it seems too much for the most arrogant sect to say that our own observation and that of medical men in all ages continually attesting to the strange power of the soul of a man can be ignored.

In the spirit of willingness to investigate is in all cases the common ground where honest opponents may erect an altar and bring to it their offerings; and in this case one thing is sure, that the more efficient aid a psychic science affords the profession,

the more readily and steadily will our patients cling to the use of attenuated medicines.

Let it be observed that the idea of psychic conditions to be acted upon, and psychic powers to act upon them, is no theory or speculation of any school. It is the dumb *soul* of the healing art inaugurated and coeval with the first necessity of a cure. It is no myth, but a living truth, well settled and palpable, and which demands the attention of all sensible men.

Medicine is on all hands admitted to be an uncertain science, and all our success in it, of whatever kind, challenges investigation. However any result is obtained, by how many ways we advance to the work of curing the sick, it will be seen before long, and that simply because the people have eyes to see with, that any way which saves the sick from the ordeal of drugging, will be accepted before they submit to the merciless means which the dominant school even at this late day imposes. But, as just intimated, is there not a common ground in that new, and yet *old*, department where all the schools might meet? Drugging doctors need not retire, and the disciples of Hahnemann need not come boasting, but let all stand inquiringly before the wonder-working power of the Psyche, in averting by its own force the defiling work of diseases, and in restoring by its own force our worn and wasted energies. Let us own its power, and not be slow to secure the benefits. In this work the nostrum maker and vender are for the time out of business, and the druggist has no interest. All who meet at this holocaust must turn their eyes upward and ask only for more light.

SECTION IX.

REPORT

OF THE

BUREAU OF OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY,

HENRY C. HOUGHTON, M.D., ... New York.
T. P. WILSON, M.D., ... Cincinnati.
C. T. LIEBOLD, M.D., ... New York.
W. H. WOODYATT, M.D., ... Chicago.
H. C. ANGELL, M.D., ... Boston.
W. L. BREYFOGLE, M.D., ... Louisville, Ky.
GEORGE S. NORTON, M.D., ... New York.

TO THE

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XVIII.

RETINITIS ALBUMINURICA.

By George S. Norton, M.D., New York.

That Bright's disease of the kidneys may cause inflammation of the retina is an undoubted fact which has been well established by many cases. Though it may be only a symptom of the grave disease situated in the kidney, still it claims our attention, from the important structures implicated and the sad results which follow its course, and demands our unceasing study into its pathology, ætiology, symptomatology and treatment. That it is absent in the majority of cases of Bright's disease is without doubt true, but still it is present in a large per cent. and often is the first, and perhaps only symptom which directs our attention to the destructive process going on in the kidney.

It is not my intention to give an exhaustive description of this disease, as the limits of this paper will not allow it, but will only give the principal points, together with some of the most recent researches into its study. To an able monograph upon this subject by Dr. Hugo Magnus I am indebted for many valuable hints used in the preparation of this article.

Retinitis albuminurica can be divided into two distinct forms, viz., retinitis albuminurica apoplectica, where the disease is localized in the retinal vessels, and retinitis albuminurica degenerativa, when it is confined chiefly to the nerve elements and connective tissue.

The former, or apoplectic form, which is very rare, there being only a few uncomplicated cases on record, is characterized exclusively by the great tendency of the retinal vessels to hæmorrhage. These extravasations vary greatly in form and size

according to situation; thus they are more often striated than otherwise, showing that they lie in the layer of optic nerve-fibres, though they may be large and irregular, especially when seen in connection with a large vessel, or they may be small, round, and completely isolated from any of the retinal vessels, in which case they are to be found in the deeper or granular layers. Sometimes, in the severest cases, small yellowish spots may be seen distributed throughout the retina, though not arranged in any regular manner around the optic nerve or macula lutea. Other changes in the retina, as swelling, dimness, etc., are absent or at least only present in an unessential degree. No changes are to be observed in the optic nerve.

The causes for this inclination to hæmorrhage are as yet obscure. The most important are, according to Virchow, Schweigger, Müller and others, to be found in the atheromatous changes which take place in the walls of the bloodvessels in old age; and for this reason we find this form of retinitis occurring in old people, being very rarely, if ever, seen in young persons, when it takes on other changes. It is also more common in men than women. Another point, explanatory of the causation of retinal hæmorrhages in Bright's disease, advanced by Dr. George Johnson, in the *Medical Times and Gazette*, for July 2d, 1870, is very interesting and will be especially important in these cases, if completely verified. He has observed in Bright's disease with hypertrophy of the left ventricle, that the muscular walls of the minute arteries are hypertrophied, though in different proportion in the various tissues; and in one case, which he had the opportunity to examine where death was caused from cerebral apoplexy, he found the vessels of the brain and eye not hypertrophied, as they were in the other tissues. Dr. C. S. Bull (*Am. Jour. Med. Sciences*, July, 1874) had also a similar case, which upon microscopical examination supported the same view. If this can be proved to be always the case, we have a very important cause for cerebral and retinal hæmorrhage, as on account of the overaction of the heart and lack of hypertrophy of the intracranial vessels, these would be the ones to give way the earliest.

The final fate of these extravasations is the same as in any other form of hæmorrhage in the retina; thus they may be com-

pletely reabsorbed, or may develop, according to Virchow, into peculiar white spots composed of various granules similar to fat, or, finally, may fade away into little, black, hazy, granular pigment spots.

The prognosis of this form of retinitis is unfavorable, being more dangerous than any other disease of the fundus, as owing to this tendency to hæmorrhage, numerous extravasations may take place in the fundus, destroying vision, or may occur in the brain-substance itself, producing death.

Certain well-authenticated cases of this disease are on record, and it is noticeable that in nearly all only one eye was affected. Whether this is simply a coincidence, or whether this form more often attacks one eye than the degenerative form is still an open question.

Before leaving this form of retinitis albuminurica, I would simply mention another trouble caused by Bright's disease, namely, neuritis albuminurica. This does not differ in appearance from the "engorged papilla" of Von Graefe, though often extravasations are to be found in the nerve and even scattered through the retina. Therefore I always make it a point to examine the urine in all cases of neuritis or retinitis apoplectica, unless some other apparent cause is present.

We now come to our second form of nephritic retinitis, retinitis albuminurica degenerativa, which is by far more frequent than the preceding, and is marked by fatty degeneration and sclerosis of the connective tissue and nerve elements of the retina, together with a more or less tendency to retinal hæmorrhages. Since the destruction of the various elements of the retina is not the same, so we have numerous forms and appearances of the disease brought to our notice. At the outset and during the first stage it presents no characteristics by which it may be diagnosticated from other forms of retinitis. There is at first the usual hyperæmic condition of the retina and optic nerve found in other kinds of inflammation of this tissue, veins tortuous and enlarged, though the arteries are normal or narrowed in calibre. Soon a grayish dimness or serous infiltration of the retina appears, especially around the optic papilla, whose outlines it veils, as well as the retinal vessels, which appear as if covered with a thin

gauze that entirely conceals them in spots. The optic papilla is not usually much swollen, though the reverse is also true. Scattered over the fundus, chiefly along the course of the retinal vessels, smaller or larger extravasations of blood are seen, of a bright-red or brownish tone according to their age; these are usually of a spindle shape or striated form, showing that they are in the internal layers, though they may assume various shapes and be situated in the outer layers of the retina. We also often find a round or irregular shaped hæmorrhage in the macula lutea, the anatomical ground for which lies in the absence of the nerve-fibres at that point. These numerous extravasations of blood are usually present, as would be expected in such extensive destruction of tissue which must implicate to a certain extent the walls of the bloodvessels. The disturbance in the general circulation, owing to hypertrophy of the left ventricle and valvular disease, which are so frequently met with in this form of nephritis, also predisposes to hæmorrhage; in fact it is rare to find retinal hæmorrhages in this disease with no heart complication.

The swelling and dimness of the retina, which characterized the first stage, now appears to increase, and more or less numerous white spots or patches of wax-like lustre show themselves. These spots are generally situated a short distance from the disk, and have a tendency to coalesce, forming, according to Liebreich, a white mound around the nerve, though this fat wall is in no way characteristic and is not as universally seen as Liebreich assumes, being in fact often absent, so that no pathological change can be found around the nerve, while hæmorrhages, degenerated spots, etc., may show themselves in other parts of the fundus. The form of these white, faintly glistening spots vary greatly, being sometimes very ill-defined, and again well-marked. The size also varies from a spot three or four times as large as the papilla to others not larger than the head of a pin, which are chiefly found upon the borders of the diffusely dimmed spots. From the form and size of these white spots, Wecker draws his conclusions regarding the seat of the disease, viz., which layer is involved.

Another peculiar and, according to Liebreich, characteristic

symptom is the appearance of small, white, glistening, stellate spots around the macula lutea, though these may be present in other forms of retinitis, especially neuro-retinitis, and are not very rarely absent in the nephritic form; still they are usually present, and have a very pretty star-shaped arrangement, which in the further course of the disease develops into a large white patch with brown points and striation, which encroaches upon the yellow spot and surrounds the same; when this is seen there is probably some choroidal complication.

These changes in the macula lutea, especially when the remaining tissues of the fundus are healthy, have been observed by Galezowski in women suffering from the albuminuria of pregnancy, and have again disappeared after delivery.

The retinitis albuminurica occurring during pregnancy belongs doubtless to this degenerative form, though some oculists have classified it separately, as Pagenstecher, Saemisch, and others, but its pathology is the same, though its course is more rapid and prognosis more favorable.

The prognosis varies greatly, though as a rule is unfavorable. A complete disappearance of all the above symptoms, with complete restoration of the vision, has been observed; but in these cases the nerve elements themselves have not been probably implicated, and the whole complex of symptoms have been usually tolerably acute, occurring after scarlatina or pregnancy. When this disease is the result of chronic albuminuria, as it generally is, the retinal affection commonly undergoes a regressive metamorphosis; the white patches fade away, lose their glistening whiteness, and at last disappear to that extent that only a fine grayish veil seems to hide the fundus, but with all this no improvement in the vision is to be perceived. This result is not very frequently met with though, as the patient generally succumbs to the constitutional trouble before this point is reached. One point in the prognosis is established, and that is that there is no definite connection between the improvement in the eye and in the kidney, for we often see cases where the retinitis improves decidedly and yet no change in the amount of albumen in the urine takes place; while upon the other hand the urine

may be wholly free from albumen for a long time, and no change occur in the condition of the eye.

It will be seen from an examination of the preceding symptoms that none of them are purely characteristic of retinitis albuminurica, although when we have the white patches present in different portions of the fundus, or tending to form a fat wall around the nerve, when the stellate spots in the macula lutea are to be found, or when extravasations of blood are to be seen in various parts of the retina, then we should examine the urine and find whether albumen is present or not, for similar ophthalmoscopic appearances have been observed in diabetes (Jaeger, Noyes, Bouchut), and in neuro-retinitis descendens from cerebral causes (V. Graefe, Schmidt).

The pathological changes which take place are briefly as follows: The dimness of the retina is due to a swelling of the nerve-fibres and to a destruction of nourishment of the homogeneous substance between them, which render possible, in examination, a very easy isolation of each element (Virchow, Müller). There also appears in large quantity an accumulation of fine, dark, molecular element cells (Wagner). The white patches are composed of various diseased products, chiefly of a fatty degeneration of the connective and cellular tissues, especially in the external granular layer. A ganglion form, hypertrophy and sclerosis of the optic nerve-fibres are to be seen. The stellate spots in the macula lutea are due to a fatty degeneration of the radial connective-tissue fibres, and assume the above form from the anatomical arrangement at this point. Further, a more or less extensive accumulation of colloid balls in the granular layers has been observed (Wagner's *Erhärteten Fasserstoff*).

The blood extravasations are usually situated in the layer of optic nerve-fibres, though they may break through into the deeper layers. The coats of the retinal vessels frequently undergo sclerosis or fatty degeneration, and, according to Wells, the tunica adventitia in the larger branches often becomes hypertrophied, so that the vessel is diminished in size, appearing like a white band with a central red line.

The impairment of vision is generally considerable, though not as great as one would suppose from the striking ophthalmo-

scopic changes observed in the retina, as this white mass is usually due chiefly to fatty degeneration of the connective tissue and cell elements of the retina, and not to sclerosis of the nerve-fibres.

The field of vision commonly remains good, though occasional gaps may be found corresponding to that point of the retina where the inflammatory changes are most marked. A hypermetropic state of the refraction is very frequently developed, owing to the swollen condition of the retina. The impairment of sight generally progresses very slowly, and in this way can be diagnosticated from the sudden loss of sight occurring in Bright's disease as the result of uræmic poisoning. The amblyopia arising from retinitis albuminurica rarely goes on to absolute amaurosis, there being only two recorded cases, one by Von Graefe, the other by Donders.

We now come to the homœopathic treatment of retinitis albuminurica, and at the outset we are met by an obstacle almost insurmountable, namely, the lack of clinical verification of our remedies; for in all the homœopathic literature up to this date, either in German or English, I can find no mention made of this form of retinal inflammation. The reason for this is probably to be found not only in the obstinate nature of the malady and its resistance to therapeutic means, but to the lack of knowledge and inability on the part of the general practitioner to recognize this serious trouble situated in the retina. Another obstacle which presents itself is found in the chronic nature of the disease, which requires that the patient be kept under treatment for a long, long time; and this they often refuse to do, especially when the prognosis is doubtful, preferring to place themselves under the care of some charlatan who will promise a speedy cure, or take the remedies advised by people who say that they were troubled "just the same way." Cases often come to us which are seen only once and then depart to return no more.

In any treatment the chief attention is directed to the renal trouble, and therefore the old school rely mainly upon those remedies which promote an increased action of the skin and bowels, thus relieving the kidneys, and also upon the use of tonics, as iron, steel, quinia, etc. The only local remedy em-

ployed by them is the natural or artificial leech, or, when the patient is too much debilitated for the abstraction of blood, the use of the dry cup.

In our treatment the first points to be attended to are such general hygienic measures as are recommended in all cases of Bright's disease. Then, concerning the eyes, perfect rest from all use should be enforced, and protection from the glare of any bright light by the use of curved blue glasses. The patient should also be directed to avoid all stooping, for this favors the flow of blood to the eye, thus increasing the tendency to retinal hæmorrhages. If the disease is slight or in its retrogressive stage, and patients must use their eyes, any anomaly of refraction, as hypermetropia, which is so often present, must be remedied by the selection of proper glasses.

The few cases cured by internal medication, which I have been able to collect, seem to point to the following remedies:

Merc. corr. seems to have been used with marked benefit in the two cases occurring in the practice of Dr. R. C. Moffat, of Brooklyn (a full description of which, furnished me by the kindness of the Doctor, are appended to this paper). The symptoms which guided to its selection are to be found in the report of the cases. Both of these cases Dr. Allen tells me were characterized by all the prominent symptoms of retinitis albuminurica, the white patches, hæmorrhagic extravasations, enlarged bloodvessels, etc., etc.

Kalmia latifolia.—Dr. Allen reported to me a case occurring in his practice, which was under treatment for some length of time, and made slow but sure improvement under the use of Kalmia.

It was as follows: A lady, age about 30, had been troubled with swelling of the hands and feet, pain in the back, etc., before her marriage. After marriage, during her first pregnancy, these symptoms rapidly increased, and albumen was found in abundance in the urine. Her sight now began to fail, until after confinement she became nearly blind. She then appeared for treatment, when it was found that she could count fingers at only five feet distant with her best eye. Nothing abnormal was to be seen externally, but upon ophthalmoscopic examination the

characteristic appearances of retinitis albuminurica were plainly recognized, the white patches in various parts of the fundus, their stellate arrangement around the macula lutea, hæmorrhages into the retina, tortuosity of the vessels, etc. The urine was highly albuminous. She also suffered from dropsical swelling of the lower extremities and pains in the back as though it would break, with sharp pains in the upper dorsal vertebræ extending to the shoulder-blades. Chiefly on account of these pains in the back Kalmia was given, with marked amelioration of all the symptoms. This was continued off and on, with occasional intercurrent remedies, for three years, during which time she passed through another confinement with no serious difficulty. All this time her vision had been slowly improving until at last it was equal to $\frac{20}{40}$, though clearer in certain parts of the field than in others, but no marked scotoma were present. The fundus had gradually cleared, though the retina still remained hazy in spots.

Gelseminum.—The following case I also find in N. Y. Oph. Hospital case-book, Dr. Allen's clinic: Mrs. S——, 23 years of age, noticed during her pregnancy a dimness of vision, which came on suddenly one day, some five weeks before parturition, and grew worse after delivery. As soon as able (Nov. 21, 1867) she appeared for treatment, complained of itching in the eyes, but no pain, and a dimness of vision. Ophthalmoscope showed the outer part of the optic nerve whiter than normal, and extravasation of blood in various parts of both retinæ. Can only read No. 4 Snellen's test-type. Albumen detected in the urine. Gelsem. was prescribed and continued till December 16th, 1867, when she was able to read No. 1 with difficulty, and the eyes felt much better.

Mrs. S——, age 30, came to me some two years ago on account of a dimness of vision which had not long existed, but seemed to be increasing. She had Bright's disease of the severest character, urine heavily charged with albumen, casts in abundance, general dropsical symptoms, etc., etc. V. = $\frac{20}{80}$; Hyperopia = $\frac{1}{3}\frac{1}{0}$; but to relieve the asthenopic symptoms which were present was compelled to give Convex 24, with which she could read very easily and distinctly. No glasses improved

distant vision. With the ophthalmoscope I found the retina quite hazy, optic disk ill-defined, veins tortuous, arteries pale, and in the left eye a small white spot a little outwards from the optic nerve. This was plainly situated in the retina, and was the only symptom which was at all characteristic. The vision would disappear at times, for a few moments, entirely, especially when under any great excitement. Arsenicum was given for some time, and later Phosphorus. Under this treatment she seemed to improve, general health grew better and eyes became stronger, though the vision remained the same. The occasional disappearance of vision was wholly relieved. The ophthalmoscopic picture remained the same, with the exception of a decrease in the venous congestion.

I have now given very briefly and imperfectly the history of a few cases where remedies seem to have acted beneficially, but still there is a great field open for future discovery and research into the action of our remedies in this grave disease, and it is one where a careful observation of all cases should be made and reported in full. It has seemed to me, from the study of our Materia Medica, that Phosphorus ought to be a grand remedy in this affection, for the chief pathological change is fatty degeneration, and Phosphorus produces this condition as well as the tendency to hæmorrhage and many of the symptoms of disturbed vision; but future experience must confirm the truth of this suggestion.

Hepar. sulph. is also a remedy to be thought of, as well as all those remedies recommended for the renal trouble.

For the retinal extravasations Lachesis, or one of the other snake poisons, will probably be indicated, as I have seen excellent results following their use in cases under the care of Dr. Liebold, as well as in my own of retinitis apoplectica.

I append two cases by R. O. Moffatt, M.D., of Brooklyn, N. Y.

Mrs. P—d, of Brooklyn, experienced her first confinement twelve years ago, under allopathic care. Its severity may be inferred from the death of the infant, convulsions, a week's use of Sulphuric ether (two pounds), and loss of memory for six months.

Her second confinement happened six years later, under her present physician, and presented only a distressing gestation. Her boy is now living.

Her third, expected last March, presented interesting features, which are summarily noted, as follows:

Blonde; 32; and bon vivant. Her pregnancy, long desired, gave unusual satisfaction, and progressed well till the end of the sixth month, when locomotion became inconvenient. The hands and feet swelled, the face puffed, and the head began to ache; yet the appetite and strength were good; and clumsiness and determination to the head were the only complaints. These did *not* yield to *Ars.*, *Gels.*, *Merc.*, and *Bellad.*

In a fortnight (January 1st) the headache had become not only constant but severe; and dimness of vision set in—at first, a "descending of bars of darkness" in the left eye, next day in the night increasing to total obscuration, by the 3d of January. At the same time, the fœtal movements became rarer and feebler, and ceased entirely on the same day, and the urine progressively diminished in quantity and in frequency, and, on examination, proved to be heavily charged with albumen. A very grave condition was manifest.

For three days she received *Merc. corr.* and *Belladonna* and *Apis* and *Bellad.;* and on the 6th of January, a regular and moderate labor of four hours, accompanied by the exhibition of Sulph. ether, resulted in the birth of a dead infant. No convulsions ensued, no flooding—nothing untoward, except total blindness and great debility of the patient. In twenty-four hours, without premonition, convulsions set in, but were stayed by Chloric ether before my arrival at the bedside. Her lochia disappeared, and tremendous tympanitis set in. Profuse hæmorrhage resulted from the endeavor to recall the lochia; and though it was arrested by Cinnamon, yet the increased depression that ensued added greatly to the anxiety felt for the patient.

Her condition was now, anasarcous, tympanitic, delirious or semi-conscious much of the time, and totally blind, and the urine but a pint in twenty-four hours, highly charged with albumen, as shown by daily examination. The skin was pale,

pliable and dry; the surface warm; the pulse soft, small, and 90 to 100, varying. To the above must be added increased restlessness at night.

Merc. corr.[24], and *Arsen.*[6], to which were added frictions with the healthy hand, constituted her only treatment for several days. When she became conscious enough to ask for it, two or three whiffs of Chloroform secured a good night's sleep. Under this course, varying the potency of *Merc. c.* to the 6th, 12th, and 30th, she steadily, though slowly, improved. In the four or five weeks that followed, she took intercurrently, as called for, *Ars.*[12], *Apis*[30], *Rhus*, *Chin.*, and *Nux.* The albumen in the urine steadily diminished, and could not be detected by heat and nitric acid in the fourth week. Some perception of light occurred about the second week (before she could change her position in the bed), but nothing like vision or discrimination of objects was acknowledged till the 4th. The recurrence of *sight* was very gradual and varying. It presented some notable features (corroborated in the experience of another patient of the writer's), which were due undoubtedly to the destruction of portions of the retina. When first able to discriminate objects at all, she could see partially; thus, "the hands, but not the face, of the clock;" "the ears, but not the head of a horse going along the street;" "the shelves, but not the open door of a closet," etc.

With some inconsiderable perturbations of health, her convalescence has been uniform and progressive. In April she sat up most of the day, and could see sufficiently to distinguish the larger objects in her room; in the latter part of the month she was allowed to ride freely, to take part in social life, but not to read, or sew, or do anything else that required steady or close attention. May 14th, Professor Allen, after ophthalmic examination, reports the vision of the right eye $\frac{1}{6}\frac{2}{0}$, of the left $\frac{1}{4}\frac{2}{0}$, and prognosed "probable improvement in vision, with proper care." June 9th, has gone for a three months' visit in the country, taking with her *Apis*[30] and *Natr. mur.*[30]

Mrs. F—r, æt. 35, of Brooklyn, slight in figure and rather spare; pregnant for the eighth time, but has sustained several miscarriages; was in her seventh month, expecting confinement

in July (of 1874). In the latter part of April, complained of headache, itching of the scalp, and later, of the eyelids. About this time great jactitation of the legs at night was observed, and "some difficulty in seeing clearly." Soon the dimness was positive; general discomfort greater; deep crimson-red buccal cavity, but no dropsy, local or general. May 10th, Professor Allen, in consultation, pronounced her far advanced in Bright's disease, and gave a fatal prognosis. An examination of the urine presented hyaline casts and abundant albumen. Fœtal movements were very feeble, and ceased, and on the 23d May (about eight months) labor ended in the expulsion of a dead fœtus. Nothing untoward ensued but the blindness of the mother, which continued unabated for about two weeks. Her general convalescence was fair, though slow. In two weeks she perceived light, and hopes were entertained of restoration. These hopes have been in a good degree confirmed, though the progress is slow. Under *Merc. corr.*[12], mainly, but with the aid of *Rhus*, *Apis*, *Nux*, and occasionally *Rhododendron*, she is so far restored now (June 1st, 1875) as to superintend her household, partake somewhat of social life, and even read large print, a few lines at a time.

Her experience was like that of Case 1, in partial vision, etc.

XIX.

INFLAMMATION AND ATROPHY OF THE OPTIC NERVE.

By William H. Woodyatt, M.D., Chicago, Ill.

At the last meeting of the American Institute attention was directed to the subject of swollen or engorged optic disks. The main object of that paper was to show how the observation of this condition might be made useful in the study of certain nervous diseases, but especially diseases of the brain. The one condition was spoken of by itself at that time instead of in connection with optic neuritis and atrophy, for the purpose of giving it due prominence as a distinct and separate affection of the nerve. Writers on the subject do not agree as to the distinct existence of a swollen disk. Some assert that it is but the primary stage of true neuritis, and not to be distinguished from it, while others hold strongly, and it seems to me with abundant reason, the position that it not only exists separately, but may be recognized during life.

On the settlement of this point hinges many other questions of importance, and the confusion that has heretofore existed between a choked disk and inflamed nerve is now retarding the labors of those men who are endeavoring to interpret the external evidences of brain diseases by means of the ophthalmoscope. The engorged disk is the result of intracranial tension, an increase in the contents of the cranial cavity, and may be produced by anything that causes distension of the ophthalmic veins.

Engorgement is confined to the disk, while neuritis affects the nervous trunk in a greater or less part of its length. It is a

condition which may exist in connection with hydrocephalus, meningitis, and tumors of the brain, and appear for a certain length of time and then subside. It may appear temporarily while a deepseated cause is operating to produce a descending inflammation of the optic nerve, and yet have only an indirect connection therewith. For instance, a tumor at the base of the brain may be quietly but certainly causing a true inflammation of the adjacent optic nerve, but the process has not extended far enough to be manifest at the disk; a slight increase in the size of this tumor may occlude the veins of Galen, say, when immediately the disk will become distended and engorged. Now if the growing tumor adjusts itself to the surrounding parts by absorption the disk will clear up, and remain so until the true condition becomes apparent, *i. e.*, atrophy, or the engorged disk may lead directly to true optic neuritis.

In the latter instance there will be a stage at which it will be almost impossible to distinguish between the two conditions. Engorgement is caused by serous infiltration into the connective tissue, and must not be confounded with the nuclear proliferation necessary to a neuritis. With this distinction then clearly stated we are prepared to investigate optic neuritis and atrophy. The subject is one of joint interest to the specialist and the general practitioner. It is one, indeed, which demands the labor of each, and its questions can only be solved by co-operation.

One of the most important of these questions is whether degeneration of the optic nerves not arising from extraorbital or intraocular causes always means serious lesion of the cerebrospinal cavity. Not a few careful observers say that it does, while some others are not prepared to admit so close a connection between the two. We are not surprised at the difference of existing opinions, when we consider the peculiarities of the cases and the number of autopsies and microscopic examinations that have been made. The latter have been too few, and a praiseworthy task for the coming year will be the examination of as many of these cases as possible.

When the ophthalmic surgeon meets a case of optic neuritis, he can only base his supposition of a sound encephalic condition upon negative evidence. Years might elapse after a neuritis

had terminated in atrophy before cerebral symptoms manifested themselves, because a small belt of inflammation or tumor might interfere with the optic centres or tracts without setting up such symptoms as would attract attention. Such a case would be dismissed with the incurables, and later when brain symptoms became troublesome would come under the care of the general practitioner. If such cases should die of acute disease before any decided cerebral changes had appeared, an autopsy would be simply invaluable. And until we are able to secure such post-mortem examinations, the subject must remain in its present uncertain state. Whenever we are called upon to treat a case of apparently uncomplicated optic neuritis, I suggest the advisability of warning the patient of future danger, and furnishing him with a written statement of his condition for the benefit of the physician under whose care he may next be placed.

On the other hand cerebral diseases may run a long course, the patients may pass through many different hands, the symptoms may have entirely or partially disappeared, and escaped the memory of the sufferer who applies to us for relief from his blindness. Instead of being uncomplicated at the time we first see it, close questioning may recall evidences of brain disease which would escape a casual or careless examination. Here the physician's warning at the time of the appearance of the brain symptoms, of the possibility of future eye trouble, would impress it upon the patient's mind, and render mistake less likely by the eye surgeon. In this way at least much good might be done in the way of joint work towards clearing up the doubtful point.

For the present it is safe to say with Allbutt "that the occurrence of papillary ischæmia or of optic neuritis in any person ought to awaken the gravest suspicion of cerebral disorder, and that the occurrence of simple atrophy should suggest great watchfulness."

In optic neuritis as in ischæmia the amount of sight is one of the poorest of guides as to the amount of mischief. Very little dependence can be placed upon it. The ophthalmoscopic picture is uniform and presents the following appearance.

The nerve is swollen but not to the same extent as in ischæmia, nor does it present the steep elevation on one side so char-

acteristic of the latter. Its surface is covered with more vessels than in health. The main trunks of the veins are enlarged and tortuous, the arteries are smaller and less distinct. At and near the disk may be seen small hæmorrhagic spots. The color is a reddish-gray, uniform and opaque, and the new formation involves more or less of the adjacent retina, concealing even the large vessels as they converge towards the disk. The microscopical appearances are much the same as those found in any neuritis, the differences depending upon the richness of the connective tissue, the rate of the destructive process, and the character of the secondary metamorphosis.

The sheath of the nerve is thickened and full of proliferating nuclei. The sheaths of the bloodvessels are also condensed and thickened. If examined at an advanced stage the nerve-fibres are found to be wasted and pressed upon by the increased supply of connective tissue. Their place may at times be occupied by a pigment degeneration.

The inflammatory process always commences in the connective tissue; the nerve column and bloodvessels are affected secondarily. The nerve is affected in its entire thickness, and invariably crosses over the chiasma and involves its fellow. The same tendency to propagation along the sheath is to be seen here as in other cases of neuritis, and close observation of the changes here apparent will enable us to reach satisfactory conclusions as to the mode, the rate, and extent of like changes in other parts of the body.

The intracranial causes of optic neuritis are meningitis or encephalitis, and the accompanying conditions necessary to involvement of the optic tracts are active proliferation, for a sufficient length of time in close enough proximity. In syphilitic meningitis these conditions are almost always present, consequently we very seldom find the one without the other.

When a tumor causes neuritis, as it not unfrequently does, it is through an intermediate meningitis; an abscess may occasionally cause neuritis in a similar way. The tendency of optic neuritis is toward atrophy. Authorities differ widely as to its curability, but the difference seems to be largely due to the fact that no discrimination has been made between ischæmia and neuritis.

When Galezowski says that one out of three cases may be cured, he undoubtedly confounds these two conditions. My experience has not been extended enough to warrant the recommendation of any remedies, though in prescribing such medicines are given as have been found useful in chronic meningitis.

When the swollen disk of neuritis recedes, and the reddish-gray color is supplanted by a dirty white; when the hæmorrhagic spots shrivel and whiten, and the fine vessels are no longer visible on the face of the disk; when the enlarged veins diminish in size, the arteries still remaining small, we have the condition known as consecutive or transition atrophy. Under the microscope these nerves may appear as mere fibrous cords, though several have been examined in which some of the nerve-fibres were intact, notwithstanding a very active proliferation process. Of course in these latter there might have been useful vision remaining.

But one other form of atrophy remains to be considered, and that is primary, simple, or white atrophy. This is much more dangerous to vision than the consecutive, and for which there seems to be no cure. Here the disk is usually of a dead-white color, which may or may not be slightly cupped, and the vessels are even smaller than in the other variety. It may occur in any part of the nerve, from the quadrigeminal bodies to the disk, and may be due to any cause which severs the nerve-fibres, and leaves the separated parts to wither, or which destroys the nerve-centres themselves, rendering the nerves useless. Sclerosis of the spinal cord, as of the encephalon, may embrace the nerve in its process and destroy it, or senile degeneration of the arteries, embolism, and the like may cut off its nutrition and thus render it useless. To resume briefly the points of the paper, they are (*a*) to recognize the difference between ischæmia and neuritis proper; (*b*) to secure a joint working of specialists and general practitioners in determining whether or not ischæmia, neuritis, and atrophy, when not caused by extraorbital causes, are indicative of severe lesion in the cerebro-spinal cavity; (*c*) to arrive at a more correct prognosis of neuritis and consecutive atrophy, based upon a treatment yet to be applied after an accurate diagnosis has been made.

XX.

ALUMEN EXSICCATUM IN OPHTHALMIC PRACTICE.

By C. T. Liebold, M.D., New York.

It is with great pleasure and satisfaction that I bring this Cinderella, this too much neglected stray waif among medicines, to the notice of my colleagues assembled at the meeting of the American Institute of Homœopathy.

Chemical Notes.—Alumen exsiccatum, dried alum, is the officinal name of the Pharmacopœia of the United States: Syn. Alumen ustum, Burnt alum. The burnt alum is prepared by subjecting the common alum* in a suitable vessel to a temperature not exceeding 232° C. (450° F.), until it loses the 24HO crystal water, and when cold it is reduced to a fine powder. I had it freshly prepared, of a pure article, by Eimer & Amend, druggists, Eighteenth Street and Third Avenue, New York.

Literature and Use as Medicine.—In the five volumes of the *Homœopathic Record*, by Raue, it is mentioned once (1872), for long-lasting pain in rectum after stool, by Dr. Hering; *not* the burnt alum. In Allen's *Materia Medica*, the only reference is under alumen provings: 18. Poisoning by calcined alum, by which the burnt alum is meant. In Marcy's *Elements of a New Materia Medica*, the burnt alum is recommended as an external application to ingrowing nails (the nail does not grow in, but the granulations grow over it), and to fungous granulations in general. The crude alum is recommended in solutions, or as a cataplasm mixed with the white of an egg, for purulent ophthalmia. The natives of India use it in a state of fusion mixed with lemon-juice, and applied while yet hot around the orbita for

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* The double sulphate of aluminum and potassium.

country sore eye, whatever that may be. In the works of ophthalmology, I find the only mention, if mentioned at all, either in a combination generally with sulphate of zinc, or as in Soelberg Wells, in characteristic old-school style, as one among them. He says, page 61: "In treating chronic granulations, it will be necessary occasionally to change the caustic, as it loses its effect after a time from the conjunctiva becoming accustomed to it. Thus alum, acetate of lead, or tannin may be substituted with advantage for the nitrate of silver or the sulphate of copper." I have found in his work only the crude alum, generally in combination with sulphate of zinc, in solution mentioned, especially for purulent ophthalmia.

In the latest German works the alum is scarcely mentioned at all. Only in Schauenburg is a note that Richter recommends it triturated with equal parts of Sacch. alb., applied locally against macula of the cornea. He uses the crude alum. Angell in his treatise of the diseases of the eye mentions the use of a smooth crystal of alum (which can be only the crude alum) in granular ophthalmia, page 101. But from the cases he gives, it appears that he prefers the sulphate of copper and the mitigated Lapis.

So far as my researches of a like nature go, I have in no single instance been able to find an application of the pulverized burnt alum locally upon the conjunctiva affected by trachoma, or as it is now more frequently called, conjunctivitis granulosa. It is not my intention here to enter largely into the description of the disease, of which two varieties are to be recognized. First, the real malignant trachoma or granulation, in appearance like frog spawn or boiled sago, acute or chronic; and second, the follicular (Saemisch), or vesicular (Wells); the first a real neoplasm, the second, an inflammation and hypertrophy of pre-existing follicles; the first most probably an imported disease from the Orient like cholera Asiatica, the second, indigenous like cholera nostras, and especially often seen in people suffering from chronic forms of catarrh. Both lead to more or less complete destruction of the sound mucous membrane, followed by scar tissue. That this may be caused by conjunctivitis follicularis, Saemisch and other authorities to the contrary notwithstanding, I have seen in a very marked de-

gree in the daughter of a homœopathic physician, at present under my treatment. In her case there has never any caustic been applied. Among its worst sequelæ are, the great tendency to relapses, the thickening contraction, and consequent inability to raise the upper lid, and the pannus of the cornea.

Most of its victims are in the summer of life. The real trachoma is, I believe, always caused by contagion. Crowded rooms, bad ventilation and nourishment, uncleanliness, do not cause it, but prepare the ground where it grows and flourishes on most luxuriantly. Without exception, the time of *aggravation* of all symptoms is in the *morning*, after sleep. The lashes are glued together. The lids are stiff and heavy, with feeling of sticks and sand under them, *burning* feeling of the whole eye; *improvement* after washing, as the day advances, and especially in free air. To a homœopath it is clear enough that neither Argentum nitricum, Cuprum sulphuricum or Plumbum aceticum can be the really indicated remedies, and the results from these in allopathic hands are indeed poor enough, as we can gather from their own statements. Until the 25th of March, of this year, I have used most frequently the Cuprum aluminatum externally and internally, by far preferring it to the sulphate or any other medicine. From that date, I have used in every case, some thirty in hospital and half a dozen in private practice, the alumen exsiccatum (ustum) locally, and the 3d trit. internally, and with such success that I believe I can confidently recommend it to my colleagues for a thorough trial. The finely powdered and as dry as possible substance is dusted on the everted lid, especially on the oculo-palpebral fold, and after half to one minute is carefully washed off and out again. Every patient gets a brush, which has always to be brought back, for every application, dry and clean, and the water in the hand-bowl is renewed for every one. If the warning to let nobody use their towels, or anything they use on their eyes, is as faithfully kept as given, they at least will not infect any other person. As much as possible we follow the rule to renew the application when the improvement stops. The *morning* aggravation of the eye symptoms of alumina, and the well-known action of burnt alum on the granulations of proud flesh, have led me to the above detailed mode of application.

XXI.

ACUTE SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR.

By T. P. Wilson, M.D., Cincinnati, O.

The object of this paper is not to present a systematic discussion of acute suppurative inflammation of the middle ear. The condition of our text-books at this time preclude the necessity of such a work. Not that we have attained to a high state of excellence in this particular, for the time is comparatively recent when the disease was first distinctly recognized even by the best informed, and to-day the real character of the disease, its causes, its relations and its results are scarcely known to the greater part of our profession, while its rational treatment is wholly unknown save to those who have made it a special study.

Consider for a moment the extreme frequency of the disease. Physicians are constantly meeting it. To be sure they often fail to recognize it, but unfortunately they meet it all the same. Think also of this fact, that there is no exemption of sex, age or other condition from its attacks. The most that can be said is, that a greater and less relative liability exists under various circumstances.

Another fact impresses us; the disease is a painful one, and is not only unusually severe but is often prolonged through many days.

No less important is it for us to note that this disease as a rule results in serious impairment and total loss of the function of hearing. And the picture is but imperfectly completed when we have included in our sketch the fact that acute suppurative

inflammation of the middle ear is not only often fatal to life, but it not infrequently remains undiscovered even after it has done its direst work.

The need of a better knowledge of this disease on the part of all is a fact that no one will controvert.

Even specialists themselves will frankly acknowledge that at the best their acquirements in this direction are quite too fragmentary and unsatisfactory.

With these premises accepted, there would seem to be an imperative demand for immediate and universal information upon this subject throughout the medical profession. I assume this to be a want sensibly felt at this moment by those who give a patient hearing to this discussion.

But an attempt to systematically and exhaustively discuss the question, would be more likely to repel than attract you. We may leave to the aurist such details as can prove of interest to him only, because they lay the foundation of the improvement and progress of the knowledge of the nature and treatment of the disease.

Let us be content to put ourselves *en rapport* with the most recent practical facts that will aid us in understanding this disease, and giving it rational and successful relief.

First of all, it is essential that we should be able to make an early recognition of the fact, when the middle ear is involved in acute inflammation. I need hardly say that even in the ablest hands, under some circumstances, this recognition utterly fails, and we are in doubt until we are confronted with a purulent discharge from the meatus. But even this is not too late for the rendering of valuable assistance. We may still save much suffering and loss of hearing.

The earliest indication of the attack is most likely to be pain. This of course will be referable to the inner parts of the ear. But this is by no means pathognomonic. So when the patient complains of pain in the ear we are still at a loss as to the nature of the cause. Other conditions than this produce pain here. The resources of the specialist might help him to easily solve the question; but the general practitioner, whom I have specially

in view, would have only the simplest means at command, by the aid of which he might determine the nature of the affection.

The first thing he should do is to test the power of hearing. If it is not diminished he may safely conclude he is not dealing with a case of acute inflammation of the middle ear. This simple test may relieve him of much anxiety and doubt.

But suppose he finds the hearing diminished. Pain and deafness may be due to inflammation of the meatus. He must therefore examine the external passage; and if he cannot do that successfully, he must be destitute of both ability and experience.

If he should find the meatus swelled and reddened, and painful to the touch of the probe, then he is not dealing with an internal inflammation. And so again his anxiety will be materially lessened. But suppose with the pain as a constant factor he finds the meatus clear. Now he would be greatly assisted by a careful inspection of the membrana tympani. But it is idle to expect a general practitioner to do anything of the sort. He is without the necessary instruments, and he is totally inexperienced.

He has now no clew but the pain. This may be neuralgic, especially so if the patient is a child. So he tests for hearing again. It is not diminished. Then he has a case of otalgia and not otitis. But the pain and diminished hearing are both plainly marked; then doubtless he is dealing with an acute inflammatory condition of the middle ear; and, could he see it, the tympanic membrane would give him unmistakable signs of the locality and nature of the disease.

But now we have important concomitant conditions that claim our attention. Symptomatic symptoms declare themselve in the form of chills, fever, thirst, and sometimes vomiting and delirium. These show the gravity of the disease.

Let us stop here and consider the anatomy and pathology of the case we have in hand. The former we possess a tolerably clear knowledge of. The structure of the ear is neither obscure nor difficult to understand. But the pathology of the inflammation we have under consideration is I regret to say by no means clearly understood. But this is due to the peculiar location of the parts involved.

We know the lesion is in the tympanic cavity. This is lined with mucous membrane, which is, by way of the Eustachian tube, continuous with the linings of the throat and nose. The tympanic cavity is prolonged backward by the mastoid cells, which fill the mastoid process, a structure certainly well known to even tyros in anatomy.

The dome of the tympanic cavity is a thin plate of bone which separates it from the cranial cavity. The outer wall of the cavity is marked by the tympanic membrane, a thin and delicate structure which separates the cavity from the meatus externus. Now we need hardly go into farther details than these of the anatomy of the parts in order to understand the nature of the disease we have under consideration.

Suppurative otitis media is, probably, primarily an affection of the mucous lining membrane of the tympanic cavity. The fact is we know very little of the initial condition of the tissues affected. Besides a reddening and thickening of the tympanic membranes, we have no ocular demonstration of the first stages of the disease.

Subjectively we have more or less continuous pain and diminished hearing. Beyond this there is little else to attract the notice of the ordinary or general observer.

Like all other forms of inflammation, the congestive stage is followed by a stage of suppuration. The cavity is then converted into an abscess, and has wholly lost its function of conducting sounds. This abscess ripens and bursts after a time; that is, it fills to repletion and ulcerates its way out in some direction.

Suppose it bursts outwardly through the tympanic membrane, as it usually does, the case then becomes patent to the dullest.

Suppose it forces its way backward through the mastoid process; there is a possibility that even then its real character will be misunderstood.

But suppose it bursts through the dome and forces its contents into the cranial cavity, then there must ensue fatal meningitis, and this result in all probability will be mistaken for the primary cause.

The case is fortunate in its results if the soft parts only become involved. But the small bones—the ossiculæ auditus—

often ulcerate out and are lost; and not infrequently the mastoid cells, or rather their bony walls, are extensively ulcerated; and these conditions add very much to the gravity of the case.

Let us now make a note of the sequelæ of this disease. This we have already done in part. They are, partial or entire loss of hearing, perforation of the tympanic membrane, otorrhœa, mastoid ulceration, or finally fatal inflammation of the brain.

We come now to the question of treatment, not, however, because we have exhausted all previous collateral questions, but while it would savor of pedantry to make such an attempt, it would add very little to the severely practical discussion we have undertaken.

We are dealing with a certain very frequent affection, commonly known as the "earache." It is surely recognized as only this until the sequel occurs. In the meantime the pain, being the chief feature, calls loudly for relief. To meet this very few of our physicians rely entirely upon the internal administration of remedies. This is about the routine of local applications followed: First, try sweet oil dropped into the meatus; then follow this up with laudanum or paregoric applied the same way. The pain is lessened perhaps, but soon increases. Then steam is applied, and of course with indifferent success, because no proper apparatus is at hand. Then we have a hot baked potato, or a baked onion, broken open and laid over the meatus. This would be most admirable treatment if it were the auricle that was the seat of trouble; but it must take a lively imagination to see any special good resulting from such applications to the middle ear, from which they are separated by a long narrow passage and a membranous partition.

Meantime the pain is perhaps steadily on the increase, and the internal administration of morphine is resorted to; but there is no relief until the ear bursts. Fortunate is it indeed if the outward passage is by the way of the meatus. What is done now? Beyond the administration of remedies, nothing. In a few hours the discharge ceases and the abscess fills again, with a renewal of the pain and concomitant conditions. The whole affair is repeated for the second, third, or fourth time, and after

that settles down into a steady otorrhœa, or heals up with greatly diminished hearing.

To say that in most instances this can be greatly improved upon, is only an acknowledgment of the fact that the special study of this disease, a special knowledge of the anatomy of the parts and of the pathology of the affection, have made very substantial additions to our mode of treatment, and instead of complicating our therapeutical appliances, have greatly simplified them.

Not one-tenth of these cases in their primary stage come under the care of those professing a knowledge of otology. Not one-half of them come under the care of even the general practitioner. They are subjected to domestic treatment, much after the manner I have already detailed. To this the general practitioner adds very little, save in the variety of his applications.

If, now, it is a fact that we have greatly simplified and otherwise improved our mode of treatment, it would seem to be quite necessary that we should place these facts clearly before the profession at large. But, having in view the greatest good to the greatest number, it is still more important that "the common people" should know how better to treat these cases "till the doctor comes."

The primary stage is generally sufficiently marked to demand prompt treatment. Locally our reliance is chiefly upon *heat.*

In no way can this agent be so effectively introduced as by water. And this is the method *par excellence:* Let the patient lie down with the affected ear uppermost; with a small conical sponge drop gently into the meatus water as hot as it can possibly be borne. Let this be continued and repeated *pro re nata.* The effect in most instances is magical. The pain is arrested at once or greatly modified. When it returns, apply the hot water. No other local application to the meatus, save the one I am about to mention, is allowable. Suppose the pain intractable or recurring immediately the water is withheld. Then apply Atropine gr. iv, Aqua dest. ℥j, mixed, warmed, and dropped into the ear. Its action is almost instantaneous, and continues for a considerable period. The hot water should be continued at brief intervals so long as the slightest pain, fulness and sounds in the ear remain.

To this the intelligent physician may add an important adjunct. He should, if possible, inflate the middle ear with a Politzer bag. With an open Eustachian tube, how can the tympanic cavity become an abscess? This course then appeals to our common sense. In this way, taking the attack in its inception we can with reasonable certainty abort it.

To these agencies internal medication must hold a secondary but by no means unimportant place. Foremost under this head we have *Aconite*. It may be given every half hour or hour, and may be also added to the hot water locally applied, and so also may any other remedy. *Belladonna*, *Pulsatilla*, and *Nux vomica* are all we are likely to need in addition.

If the secondary stage ensues, and suppuration occurs (which fact we are at times in doubt of), we may continue the local applications already described and add *Mercurius* and *Hepar sulphur*.

If the tympanic cavity becomes filled with pus, it will generally be evident on careful inspection by the whiter color and outward bulging of the membrane. At this juncture you have but one course to pursue. Paracentesis of the membrane is called for. This is easily and safely done by an intelligent hand, and is as effectual in giving relief as the opening of a common boil. Besides this, an early outlet at this point is likely to prevent more disastrous results in involving the mastoid cells or the brain. It may be added that the operation is measurably painless and never dangerous. Moreover, the membrane kindly heals, and there is no impairment of hearing from the cutting.

If the membrane ruptures spontaneously, it may be best kept open by frequent use of the Politzer bag. Wipe the pus out of meatus; do not use the syringe, for the discharge should be left in the opening, upon the immediate edges of the membrane, as a tent, otherwise the opening is sure to close, only to cause the abscess to gather and break again.

Let me in illustration give you a leaf from my own diary. While this paper was in preparation, it was my misfortune to take a night ride from Indianapolis to Cincinnati. Falling asleep with my head reclining on my satchel, I wakened at length to find that the miscreant in front of me had raised the window, and given me the full benefit of the cold night air over the right

side of my face. My right ear to its deepest parts felt more than strangely unpleasant. Pain and roaring were constant. The next day this condition became more intense, until I applied the hot water, used the Politzer bag and took Aconite[1]. In two days I had the trouble under control, and escaped further complications.

In subsequent labors before this body I will cheerfully accept the tasks assigned me, protesting, however, against the necessity of personally illustrating my subject by testing on myself the value of such theories as I may advance.

XXII.

SUBACUTE LARYNGITIS, ACUTE LARYNGITIS, AND ŒDEMA OF THE LARYNX.

By E. J. Whitney, M.D., Brooklyn, N. Y.

In the diagnosis of diseased conditions of the larynx, as well as in the application of remedial agents, he who adopts pure symptomatology as his basis, to the exclusion of other methods for direct examination of the parts, will often find himself greatly at fault. So many symptoms of the same character accompany morbid conditions so widely different, that it is only by a careful examination of the parts that an intelligent opinion can be arrived at. Take, for instance, the symptom of dyspnœa, which may arise from paralysis of the vocal cords, from spasm of the glottis, from œdema, or inflammation, from growths within the larynx, or pressure from enlarged glands external to the larynx, and of what value is this symptom in and of itself, or even as part of a group of symptoms, as indicating with any degree of certainty the morbid process at work? The practitioner should, in the first place, examine as often as possible the *healthy* larynx, in order to become thoroughly acquainted with its normal appearance, and, secondly, to be familiar with such pathological changes as result from diseased action. The first laryngeal disease which shall claim our attention is subacute laryngitis, a disease very prevalent from November until May, and more or less throughout the year. This condition usually manifests itself as the result of a "cold." There is little or no febrile action, although the disease is often preceded with a feeling of coldness, or even a well-defined chill. The voice is always altered, and very often completely gone. The patient complains of pain,

and especially fatigue or weariness from talking; during the progress of the disease the voice may be suddenly restored and in a short time as unexpectedly lost again. Accompanying these symptoms may be found more or less cough, hard and stridulous, with scanty expectoration. The patient also complains of tickling, soreness or rawness of the throat, which excites the cough. Upon a laryngeal inspection the mucous membrane will be found slightly congested, but without any appearance of erosion or other lesion, the vocal cords somewhat thickened on their edges, and varying in color from the slightest tinge of pink to a light red. Under ordinary circumstances, if left to itself, this condition will subside in a few days, although repeated attacks would result in chronic laryngitis. In the treatment four remedies, which have proved the most successful in my hands, suggest themselves.

BELLADONNA.—Vocal cords bright-red; feeling of fulness and soreness in the larynx; dryness of the larynx.

CAUSTICUM.—Cough painful; GREAT FATIGUE from TALKING; voice reduced to a whisper; feeling of *weariness* in the larynx; soreness of the larynx.

PHOSPHORUS.—Larynx feels sore and dry. The passage of inspired air gives to the parts a sensation of rawness. Cough hoarse; expectoration scanty; constant tickling in suprasternal fossa; dryness of the throat night and day; hawking of mucus in the morning; hoarseness; loss of voice.

RUMEX CRISP.—Hawking of mucus from the larynx, with *burning soreness;* voice hoarse, especially in the evening. Tickling in the throat; cough increased by pressure on the larynx. Hoarse barking cough, with soreness of the larynx and chest.

As adjuvants to constitutional treatment, the cold water compress at night, followed by washing and brisk rubbing of the part in the morning, or atomized inhalations of different astringents, as Alum, Ferri perchlor., Tannic acid, Chloride of Zinc, will prove often of great service.

Acute Laryngitis, the most formidable of acute affections of the respiratory tract, makes its appearance, as a rule, very suddenly, accompanied by symptoms of great severity, and is therefore of short duration. It is not unfrequently of idiopathic

origin—the result usually of exposure to cold—or, as is more commonly the case, it may be present as a complication in existing chronic inflammatory action, more especially pertaining to laryngeal phthisis or syphilitic laryngitis. In many instances it is purely traumatic, and may be caused by the swallowing of scalding fluids or caustic preparations, from the inhalation of steam or hot vapors, or those arising from powerful acids. Idiopathic acute laryngitis usually manifests itself by chilliness, which soon gives place to fever and increased temperature, with soreness of the throat. The larynx will be found to be painful upon pressure, accompanied with a feeling of tightness or constriction. In rapid succession follow dyspnœa and dysphagia. The voice, although not always involved, is usually hollow or hoarse, or it may be shrill and reedy, while the act of speaking is only accomplished with great difficulty and much pain. The respiration is laborious and stridulous in sound, quite characteristic of the diminished calibre of the larynx from thickening or infiltration. The cough is hoarse, hollow, or brassy and metallic in character, and in this respect resembles the true croupal cough. The temperature, which is high from the beginning, continues to rise; fever increases; painfulness in swallowing, or in the exercise of any of the motions of the larynx, becomes more marked; the countenance betrays great anxiety as the respiration becomes more impaired, and the sufferer soon perishes from apnœa or coma. These terrible symptoms do not necessarily bear a proportionate relation to the amount of surface involved in inflammatory action, for the whole of the interior of the larynx is comprised in a very small area, but they rather depend upon the fact that an inflamed or infiltrated condition of ever so *slight* a portion of the laryngeal membrane cannot but interfere to a marked degree with the respiratory function, the swollen membrane acting as a mechanical impediment to respiration, exactly as from the lodgment of some foreign body, and *this* constitutes the gravity of the disease. In most cases of acute laryngitis one of two forms will generally be presented, one in which the mucous membrane alone is affected by inflammatory action, and the other in which the membrane and *submucous* tissues are involved. From an objective examination the cavity of the larynx

will be seen *fiery*-red in color and swollen many times its normal thickness; in the same manner the aryepiglottic folds will be seen thickened and tumid, while the ventricular bands, from the same cause, often completely hide the vocal cords. In some cases the rapidity of this action is so great that the patient dies before any assistance can be rendered, while in others the disease may run from seven to ten days. Therapeutic agents may be divided into two classes, either of which may be indicated according to the severity and *depth* of inflammatory action. In the early treatment of the case Aconite and Belladonna, alternated every hour, should at once be given, while the throat should be enveloped by cloths, wet with ice-cold water, or ice-bags. Should the inflammatory action be confined to the mucous membrane alone, Spongia, Stibium, Kali bichrom., Causticum, Rumex crisp., and Sanguinaria may be used in accordance with their special indications.

For the deeper and more dangerous form of inflammation, Hepar sulph., Lachesis, Phosphorus, Arsenicum, or Apis, may be studied as more or less indicated. Iodine, Bromine, or Chlorine, will also prove serviceable as respiratory agents.

As regards the advantages of *topical* applications, there appears to be a wide diversity of opinion among various writers, many remedies applied directly to the inflamed surface by atomized inhalations being highly extolled by some and severely condemned by others. It is after all a question which individual experience must decide. In the first place repeated inhalations of steam arising from warm water, is admitted by *all* to be of unquestionable benefit. Thus the debatable ground begins with the application of the various astringents, and ends with the application of nitrate of silver in solutions of various strength. The Tinct. Benzoin Comp. the writer can confidently recommend as having proved in his experience a most valuable sedative in inflammatory conditions of the larynx. A teaspoonful should be added to a pint of water at a temperature of 150° Fahr. (contained in a wide-mouthed bottle or pitcher), and inhaled for ten minutes. This has proved of signal service as a sedative in active congestive conditions of the larynx, particularly in their early stages.

Surgical interference is often invoked in these cases, when suffocation is threatened from infiltration. This may consist in scarification or tracheotomy. If the former be promptly performed, the latter and more dangerous operation may not be required, but in either case, whatever *is* done must be accomplished with promptness, and not delayed too long after the respiration has become impeded to any great extent.

In relation in a greater or less degree with acute laryngitis, as well as with almost all inflammatory conditions of the larynx, both acute and chronic, is that appalling and fatal malady, œdema of the larynx. This consists of a serous or sero-purulent infiltration of the submucous tissue of the *upper margin* of the larynx. Much confusion has been caused, to within a comparatively short period, in the etiology of this disease, but probably among all the names by which it has been known, that of "*œdema of the* GLOTTIS" is the most calculated to mislead, both as to character and location. Let it be plainly understood, then, that the disease which is generally known as "œdema of the glottis," consists of an infiltration into the long, loose fibres of connective tissue which lie between the aryepiglottic folds, and is therefore an affection invading the *upper margin* of the larynx, instead of the *glottis* or *floor*. While œdema of the larynx is sometimes of idiopathic origin, it most frequently occurs during the course and as a complication of some other disease, as acute, chronic, or syphilitic laryngitis, the laryngitis of phthisis, in pharyngitis, whooping cough, pneumonia, pulmonary catarrh, during measles, scarlet fever, small-pox, erysipelas, typhus and typhoid fevers. It may also occur in connection with Bright's disease of the kidneys, or other conditions favorable to anasarca, from malignant disease of the tongue, pharynx, or œsophagus, in glandular enlargements or tumors; aneurism of the arch of the aorta may induce it, as may also wounds and injuries of the larynx.

Seizing, as it sometimes does, persons in most robust health, it is more apt to make its appearance with those whose constitutions are broken down by disease or hard living. There are some who appear to be predisposed to attacks, which may return two or even three times. In the idiopathic variety, cold and moist-

ure are the main causes. A diagnosis by means of subjective symptoms can never be positively established, but palpation and ocular inspection of the parts can alone be relied upon with certainty. At the outset of the disease the respiration becomes suddenly impeded, and the difficulty increases with great rapidity; more or less tenderness of the parts is observed, which does not usually amount to pain, but rather a feeling of constriction, as though a foreign body had found lodgment in the throat. As the disease progresses, the respiration becomes more labored, accompanied by a shrill whistling sound, the cough stridulous and highly pitched, the extinction of the voice complete, the countenance livid and expressive of great anxiety. These in brief are the subjective symptoms presented, but as they are also known in croup and *spasm* of the glottis, it will be seen that they are far from being reliable as indicating with exactness the character of the morbid process going on. Viewed in the laryngoscope, the diseased parts present appearances which are unmistakable. The thin aryepiglottic folds are seen to be converted into thick puffy cushions, irregular, oval, or globular in shape. The epiglottis is increased many times its natural size, and hangs over the superior margin like a huge tumor.

The approximation of these swellings toward the median line converts the opening into a mere slit, which is much smaller during *inspiration* than *expiration*, and under these circumstances the interior of the larynx—the ventricular bands and vocal cords —are entirely concealed from view. The parts are *less* vascular in appearance than would be expected, and in color compare with that of œdema of the prepuce or of the eyelid. If the means for a laryngoscopic examination are not at hand, a tolerably good idea of the condition of the parts may be formed by digital palpation. This may be accomplished by drawing out the tongue forcibly (after enveloping it with a napkin to prevent slipping), and introducing the index finger of the right hand quickly into the mouth, and over the posterior face of the epiglottis, when the œdematous swelling will be plainly recognized.

The treatment of œdema of the larynx may be divided into three divisions,—constitutional, local, and surgical. In some cases improvement may take place from the first or constitutional

method; and again recourse must be had to all three. In the consideration of remedies for this condition it will be well to divide them into two classes. The first comprises those whose action tends to diminish effusion, and the second those which control obstructed respiration.

APIS is indicated when the attack has suddenly appeared as a complication with some acute disease, especially erysipelas, eruptive fevers, or from burns.

ARSENICUM, on the contrary, is indicated when there is a predisposition to anasarca as a result of chronic disease, or in persons whose constitutions are broken down. It is of particular value in œdema as a complication with cardiac or aortic disease, or in Bright's disease of the kidneys. Among those remedies whose action tends to the relief of dyspnœa may be mentioned Iodine, Bromine and Chlorine. The most *effective* treatment, however, consists in thoroughly scarifying the œdematous swellings and allowing the escape of the effused fluid. This may be best accomplished by Mackenzie's guarded laryngeal knife. Under the guidance of the finger, or if practicable, by means of the mirror, the knife should be directed to the part, and several incisions made upon the tumid swellings. This will often give the promptest relief; in some cases to such a degree that in an incredibly short time after the operation, the patient announces himself entirely free from all obstructed respiration or pain on swallowing. When danger from suffocation is imminent, and the proper instrument not at hand, a curved bistoury, covered with adhesive plaster except at the point, will answer the purpose; or in case the physician is without *any* cutting instrument suitable for the purpose, an effort should be made to scratch through the mucous membrane with the finger-nail.

The administration of strongly astringent substances by inhalation is sometimes, especially in the early stages, attended with excellent results. Among these may be mentioned, Alum, Chlorides of Gold and Zinc, or a strong solution of Tannic Acid. The compound Tinct. Benzoin will also prove of great service as a sedative; also the sucking of small pieces of ice.

SECTION XI.

REPORT

OF THE

BUREAU OF GYNÆCOLOGY,

S. R. BECKWITH, M.D.,	Cincinnati.
J. C. BURGHER, M.D.,	Pittsburg, Pa.
ISAAC W. SAWIN, M.D.,	Providence, R. I.
W. H. HUNT, M.D.,	Covington, Ky.
R. LUDLAM, M.D.,	Chicago.
S. S. LUNGREN, M.D.,	Toledo, O.
W. A. EDMUNDS, M.D.,	Memphis, Tenn.
H. F. HUNT, M.D.,	Camden, N. J.
CORNELIUS ORMES, M.D.,	Jamestown, N. Y.

TO THE

TWENTY-EIGHTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME I. NUMBER 2.

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VII.

DISPLACEMENTS OF THE UTERUS.

By J. C. Burgher, M.D., Pittsburg, Pa.

Perhaps no special department of medical science has enlisted so many able minds and careful observers within the past thirty years, as that of gynæcology. And there is probably no class of diseases on which the views of the profession in regard to pathology and treatment have undergone so complete a revolution as that pertaining to the uterus. The malpositions to which this organ is liable have been fruitful subjects of discussion, which have, at least, resulted in establishing a great diversity of opinion among the participants, not only on the anatomical and pathological questions involved, but on the remedial agencies to be employed. But it would be equally tedious and unprofitable to recapitulate the various opinions on hysterology which have been advanced, refuted and revived from time to time.

While uterine pathologists admit the important rôle which this organ plays in the female economy, they differ very widely in regard to the significance which should be attached to its displacements. By some they are almost entirely ignored; by others they are regarded as of secondary moment, requiring no special treatment; while others claim that they are the "*fons et origo*" of the accompanying distress, inflammatory lesions, congestions, leucorrhœa, menorrhagia, dysmenorrhœa, irritation of the bladder, of the rectum, of the sacral and other nerves, of the spinal cord and of the brain, with the attendant disturbances of functions, and the reflex and sympathetic influences exerted on almost every part of the system.

Then as to treatment, we have the advocates of hygienic measures alone; those who rely on electricity; those who employ constitutional and general or specific treatment by internal medication; others again who place their reliance on local means; scarification, cauterization, astringent lotions, injections and suppositories; others on mechanical means, pessaries, perineal pads, abdominal supporters, etc.; and still others who resort to the more doubtful surgical procedures, perineorrhaphy, elytrorrhaphy, amputation of the cervix, etc. And hence many physicians whose minds have not been particularly directed to this subject, or whose opportunities for practically testing the multiplied and multiform therapeutical means which are so confidently recommended by others are small, are left in perplexing doubt as to the choice of the proper means for treating a case of displaced uterus.

A careful survey of the various modes of treatment proposed for correcting malpositions of the uterus, affords convincing if not conclusive evidence, that the tendency of late has been too much in the direction of the employment of surgical and mechanical means to the neglect of the medical and hygienic. While the gynæcologist should shrink from nothing which will promote the recovery of his patient, he should not allow himself to be beguiled into new or adventurous measures, without sufficient proof of their necessity, efficiency, and reasonable safety, and without well considering whether some less formidable measure will not accomplish the desired result.

It may be assumed as a general fact, that every physiological function, as well as every pathological condition of the uterus, is attended by variations more or less marked, either in its size, in its tissues, in its shape, or in its relative position to the pelvic organs; there may be deviations in all these particulars. And hence, in the treatment of uterine maladies, we should bear in mind that the uterus is subject to disorders of structure and function as well as of place, and that it is not a fixed organ, but has quite an extensive range of movements within normal limits. The principal organs with which we have to deal in simple displacements of the uterus, are all contained in the true pelvis, and inclosed between the peritoneum above and the perineum

below. Hence, a correct anatomical knowledge of its normal position, its deviations within physiological limits, its attachments to adjacent organs, its relations to the superincumbent viscera, and the complex mechanism by which it is supported, are of paramount importance in all that relates to a clear understanding of the subject of its displacements.

When the uterus persistently occupies an abnormal position, it is displaced. The degree and direction of its various displacements render an exact classification difficult. It may be displaced upwards, downwards, forwards, backwards, and sideways as regards the axis of the pelvis and its angle with the vagina, without, however, any deviation of its own axis; or the organ may be fairly bent on itself, or removed from its normal position by mere increase of its natural curve, or by this curve assuming a new and abnormal direction; or the body may be twisted on itself and partly or completely inverted. And these conditions vary and mingle, so that thirty-nine deviations of place have been made out. The eight following named displacements are those chiefly recognized at present, namely:

Inversion;
Ascent or elevation;
Descent or prolapsus;
Anteversion;
Retroversion;
Anteflexion;
Retroflexion;
Lateroflexion.

I propose on the present occasion to speak only of the varieties of displacements known as prolapsus, anteversion, and retroversion: And first of descent or prolapsus.

This is considered the most frequent form of displacement, and is popularly known as "falling of the womb." This displacement sometimes occurs suddenly as the result of mechanical violence or muscular effort. In all such cases, reposition of the organ brings prompt relief, and two or three days' rest in a horizontal posture, with or without a few doses of Arn., Nux vom., or Rhus, will complete the cure. But the cases which come most

frequently under notice are gradual in their development and the cause is more continuous. Three degrees of descent are generally recognized. In the first degree we have a simple descent of the uterus, so that the os impinges abnormally on the posterior wall of the vagina, while the uterus maintains its pelvic axis, the fundus pointing towards the linea alba.

In the second degree the body approaches the sacrum, loses its parallelism with the superior strait, while the cervix descends to the resisting ellipse formed by the sphincter vaginæ.

In the third degree the organ, either in whole or in part, is forced out of the vaginal orifice. In cases of complete prolapsus the vagina is inverted almost its entire length, and the uterus hangs outside the vulva, forming a large tumor. The theory of the three degrees of prolapsus uteri may be summed up thus: First, simple descent; second, invagination of the uterus; third, complete inversion of the vagina, hernia uteri, or procidentia. In complete prolapsus the inverted vagina contains the uterus, a portion of the base of the bladder, and the anterior and lower portion of the rectum. As the uterus descends towards the outlet, it necessarily revolves around the pubic bone as a centre. The fundus gradually falls backwards, so that retroversion actually keeps pace with the descent, and when partial has merged into complete prolapsus, the fundus is directed backwards towards the anus, and the os externum points forwards. At any stage of its descent the exact position of the organ may be determined by the fingers and probe.

Causes.—The uterus is not only supported and retained *in situ* by its ligaments, but also by the pressure of the surrounding organs, and by the contraction of the upper part of the vagina on its lower segment. Hence a relaxed condition of the uterine ligaments, pelvic fascia and vagina may be safely considered as predisposing causes of its displacement. During pregnancy these ligaments are greatly elongated as well as developed; and from four to six weeks after parturition, under favorable circumstances, they remain in a more or less elongated state, and the vagina in a relaxed condition. This accounts, in part at least, for the fact that women suffering from prolapsus date the commencement of their trouble from a particular abortion or delivery

at full term. Pregnancy, therefore, may be classed among the predisposing causes of uterine displacements.

Increased size and weight of the uterus is another predisposing cause of its displacement. With the light weight and small size of the virgin and unimpregnated uterus in a healthy state, only weighing an ounce and a half (and even in those who have borne children its weight, in a healthy condition rarely exceeds two ounces), a sustaining power will keep it in place which is totally inadequate to support the organ when it is to any considerable degree increased in weight and size. The strain upon its supports increases in the exact ratio of its increased weight, while its larger size presents a correspondingly greater area of surface to the pressure of the superincumbent viscera. Other causes of enlargement and increased weight of the uterus are hypertrophies, indurations, polypi, cancerous or other malignant diseases, physometra, hydrometra, intra and extra-uterine tumors, or tumors in the substance of the organ. In many of this class of cases the displacement is constant; but in others it only occurs while the patient is on her feet. Many authors class inflammations and congestions of the uterus among the predisposing causes of prolapsus. Congestion of the uterus is of frequent occurrence; it is present not only during the periodical menstrual nisus, but may result from various mental and moral causes. Inflammations have been repeatedly observed in the cervix, occasionally in the body, and also in the appendages of the uterus, when no displacement existed.

Distension of the abdomen from ascites, tympanites, impacted rectum, distended bladder, enlarged ovaries and mesenteric glands, increased size of the liver, spleen, kidneys, omentum, extra-uterine pregnancy, tumors, etc., are among the predisposing causes. We may mention as other predisposing causes, the restricted mobility of the chest by "tight-lacing," which causes the diaphragm to press unnaturally upon and push before it the abdominal organs; and finally, the pressure of heavy garments tightly secured around the waist.

Exciting Causes.—Displacements may be gradually effected by the predisposing causes enumerated. More generally, however, the accident may be due to some violent muscular effort, a

long fatiguing walk, running, jumping; to a fall, to a severe concussion, to running up or down a flight of stairs, violent sneezing, coughing, vomiting, or, in fact, to any sudden and violent contraction of the diaphragm and abdominal muscles, by which the viscera are compressed with great force. These causes are considered temporary in their action, although the effects may continue for an indefinite period.

Symptoms and Diagnosis.—In multiparæ, as a rule, the uterus occupies a place below its standard level, and may even descend to a considerable extent without causing pain or discomfort to the patient; more usually, however, the patient complains of pains in the back and loins, and a sensation of dragging and weight in the pelvis. Rectal and vesical irritation, great fatigue from standing or walking, menorrhagia, leucorrhœa, etc., may be enumerated as among the most prominent local symptoms.

The uterus, through the ganglionic nervous system, holds intimate sympathetic relations with the more highly sensitive and vitalized parts of the body; and the several degrees of its displacement give rise to a series of general constitutional affections. But as the local symptoms are distinctive and diagnostic we need not enumerate the general, which have no fixed character, and disappear with the complete restoration of the displaced organ.

Physical Condition.—Although the symptoms detailed point to a malposition of the uterus, we can only determine its true character by an examination per vaginam. When prolapsus exists only in the first degree, the finger introduced into the vagina will meet with the os low down in and pressing on the floor of the pelvis. By sliding the finger upwards in front of the cervix, and along the base of the bladder, the anterior wall of the uterus will be felt. When the second degree has been reached the os will be found at the entrance of the vagina, and the body retroverted. In the recumbent position the tendency of the organ is to recede, hence to determine the degree of descent in the first and second stages of prolapsus, the patient should be examined standing.

Differential Diagnosis.—Prolapsus uteri in any of its varieties may be confounded with longitudinal hypertrophy of the cervix, inversion of the organ, and fibrous polypus. In hypertrophy of

the neck there is no displacement of the walls of the vagina, the great depth to which the uterine sound can be introduced and the impossibility of replacing the supposed prolapsed organ, will be sufficiently diagnostic of this condition. In prolapsus of the uterus the os is invariably found at the inferior part of the tumor, while in inversion the tumor projects through the os. A fibrous polypus may be distinguished from prolapsus by its more compact consistence, the absence of the os at its inferior portion, and the general shape of the tumor.

Complications.—Prolapsus of the uterus in any of its degrees, and especially in procidentia, is liable to complications from congestion of the organ and its appendages, endometritis and Fallopian salpingitis, chronic metritis, cystocele, rectocele, ulceration of the os tincæ, etc.

Prognosis.—In exceptional cases nature is said to have brought about a complete cure. Spontaneous cures have been observed as the result of peritonitis supervening during the puerperal state, where peritoneal adhesions have been formed between the uterus and elevated points of the abdominal or pelvic walls, and where puerperal vaginitis has caused contraction and cicatrization of the vaginal canal. Although not a fatal disease, if neglected, or an injudicious course of treatment be adopted, the prognosis as to recovery is unfavorable. When the uterus is much enlarged from a fibrous tumor or other diseases little amenable to treatment, the pernicious influence exerted upon the organism will increase, and undermine the health of the patient.

ANTEVERSION.

This disorder of place consists in the forward inclination of the uterus, so that the fundus impinges against the bladder and symphysis pubis, and the os retreats towards the lower portion or hollow of the sacrum, in proportion to the descent of the fundus behind the pubis. This displacement may be complete or partial; complete when the fundus descends behind the symphysis pubis and the os points to the hollow of the sacrum, and partial when the fundus merely rests against the bladder and pubis while the os uteri points to the lower portion of the sacrum. In anteversion the pressure of the intestines is princi-

pally on the posterior surface of the uterus; and hence the erect position, as well as every muscular effort, tends to still further depress the fundus and add to the suffering of the patient.

Causes.—The principal causes of anteversion are pregnancy, morbid growths, metritis and subinvolution, shortness of the round ligaments, false membranes which draw the fundus forwards, tight clothing, violent efforts, abdominal tumors and effusions which press the fundus forwards. Excessive inclination of the pelvis is said to produce a tendency to anteversion.

Symptoms.—Cases of anteversion may exist without causing either general disturbance or local discomfort. More usually, however, there is present a sensation of fulness in the pubic region and an uneasy sensation in the bladder, with a frequent desire to void urine, which, however, is passed without pain and usually with temporary relief. The pressure of the os against the posterior vaginal wall may induce dysmenorrhœa and sterility, while the pressure of the cervix against the rectum may interfere with its functions. In the majority of cases this displacement is probably preceded by enlargement of the body of the uterus. Enlargement is almost certain to follow, as the displacement offers an impediment to the return of blood from the uterine vessels, and chronic hyperæmia supervenes, and the gorged tissues seek relief in menorrhagia, metrorrhagia and leucorrhœa. The sympathetic and constitutional symptoms need not be enumerated. They are in the main similar to those present in most other displacements of the uterus.

Diagnosis.—This is not usually difficult. While we might anticipate anteversion where the series of subjective symptoms described are present, we can only arrive at a positive diagnosis by physical exploration. In this displacement the vaginal touch discovers the os uteri high up in the hollow of the sacrum and pointing backwards. If the finger be passed along the anterior wall of the vagina towards the pubis the uterus will be felt as a hard ridge or solid mass. Combining abdominal with vaginal manipulation, the body of the uterus can be grasped between the finger in the vagina and the hand on the abdomen, and by pushing the fundus backwards the whole uterus moves upon the examining finger, while the fundus may be distinctly felt through the

abdominal parietes above the symphysis. By conjoined rectal and abdominal touch further confirmation is obtained. By the above methods of examination we may determine any increase in the size of the organ, as well as any irregularity of form from the presence of a tumor. The uterine sound is sometimes employed in the diagnosis of anteversion, but it is rarely necessary and not always safe. Since enlargement and anteversion may both be due to early pregnancy, any doubt in regard to this condition should preclude the use of the sound.

Prognosis.—On the course, duration and termination of anteversion, we have but little to offer. Its general tendency is towards aggravation, although some amount of accommodation to the abnormal position may in time lead to tolerance. Our prognosis must depend upon the peculiarities which gave rise to the displacement and our ability to remove them. The cause removed, the effect will cease. In all uncomplicated cases we may expect permanent restitution; but when complicated by fibrous tumors, shortening of the uterine ligaments, adhesions, etc., but little more than palliation can be expected.

RETROVERSION.

By this term we designate a displacement in which the body of the uterus descends backwards into the space comprised between the folds of Douglas, while the neck and vaginal portion approach the anterior abdominal wall, and rise to the height of the symphysis pubis. It is more liable to occur during the early months of pregnancy. When it exists at other times, it is generally a secondary affection, caused by peritoneal adhesions of the body of the organ to the posterior wall of the pelvis, or by effusions between the bladder and the anterior portion of the uterus, or by fibrous tumors which press it back. There are several degrees of this displacement. The fundus may point towards the upper, middle or lower portions of the sacrum, or press on the os coccygis or perineum; the os uteri at the same time rising towards the pubic arch in the same degree that the fundus descends below the promontory of the sacrum. In anteversion the pressure of the intestines is against the posterior surface of the uterus, while in retroversion the pressure is on the

anterior surface; hence every exertion of the patient tends to increase the displacement.

Symptoms and Diagnosis.—As retroversion is rarely met with as a primary lesion, it is difficult to determine what symptoms are due to the displacement and what depend upon the disease producing it. When it occurs suddenly, as sometimes happens, from violent exertion or succussion, the symptoms are well marked and severe. The patient falls prostrate and is unable to rise. The violence done to the uterine supports cause intense pelvic pain; irritation of the bladder and rectum ensues; pain in the sacral and lumbar regions, extending to the groin and down the thighs; the pulse becomes weak and the nervous excitement great. When gradually produced, the local symptoms will be less acute, but those belonging to the complicating disorder will be added, so that a resort to physical exploration will be necessary to determine the nature and degree of displacement. By introducing the finger into the vagina, the os uteri will be found near the symphysis pubis. Upon passing the finger backwards behind the cervix, it meets a solid rounded mass, usually pressing upon the rectum. Cases sometimes occur in which the uterus takes an oblique direction, involving the rectum and bladder but little by its pressure. Further information may be gained by rectal exploration, conjoined manipulation, and the use of the uterine sound. Retroversion may be confounded with a tumor in the posterior wall of the uterus, retro-uterine hæmatocele, and impacted rectum.

Prognosis.—Where the displacement is due to tumors of the pelvis, ovaries, mesentery, etc., to an indurated or hypertrophied condition of the organ, or to firm adhesions to adjacent organs, the prognosis will depend on their removal. In simple displacements the prognosis is favorable.

Treatment.—I know of no branch of gynæcology in which a physician may exercise his knowledge and judgment in the treatment of diseases to more advantage than in that of displacements of the uterus, or in which good practical common sense is more available. The general principles of treatment may be summed up in a few words.

The indications to be fulfilled are: 1. To remove or palliate

any existing causes. 2. To replace the uterus. 3. To retain it in its normal position. 4. To overcome the relaxed and weakened condition of its natural supports. These several indications will be separately considered.

1. *Removal or Palliation of Existing Causes.*—Besides the transitory causes, such as running, jumping, and other violent exertions, which disappear with the cessation of the physical efforts put forth, many others are under the control of the patient, such as tightly fitting corsets, which restrict the motions of the chest, heavy skirts fastened round the waist, which press down the abdominal viscera, distension of the bladder, etc., can be readily obviated. Any morbid states of the uterus that may coexist with the displacement, as a general rule, should be, when practicable, removed or at least moderated by appropriate treatment, especially when they are in any degree the cause of the malposition. When the morbid state of the organ is due to the displacement, we shall rarely succeed in correcting it until we have first restored the uterus to its normal position, and maintained it there by fulfilling the second and third indications. The purely secondary displacements, due to the more permanent causes, it is not my purpose to consider at present, and need only add in this connection that when arising from polypi their removal is the remedy. Hypertrophies of the organ from tumors in its substance or on its surface, which cannot be removed, or other diseased conditions of a permanent character, for the removal of which we as yet possess no certain means, may sometimes be palliated by proper internal support. And the same treatment may also apply to ovarian, mesenteric and other abdominal tumors, to enlargements of the liver, spleen, and kidneys, which may directly or indirectly influence the position of the uterus.

2. *Restoration of the Uterus to its Normal Position.*—The first indication having been fulfilled, the malposition may generally be easily rectified by careful and intelligent manipulation. The replacement is best accomplished by a proper position of the patient and the use of the hands alone. As minute directions for replacing the organ are given in works on Gynæcology, I will only add that the reduction of any displacement of the uterus should be effected by gently causing the organ to re-

traverse the course passed on its way from its normal to its abnormal position.

3. *To Keep the Uterus in Place.*—The mechanical contrivances designed for this purpose are so numerous that an attempt to describe them would be hopeless. All the inventive genius, mechanical skill and scientific suggestions on the subject, have failed to produce any instrument or appliance that meets with the general approval of the profession. But fortunately, as artificial support is *merely* or *mainly* employed to overcome the force of *gravity*, it may be dispensed with, and the horizontal posture of the patient substituted. Having restored the uterus to its normal position, the horizontal posture of the patient will relieve the uterine supports and offer opportunity to the relaxed and weakened tissues to contract, regain their tone and strength, and if persevered in for a reasonable length of time, to resume their functions. The posture must be adapted to the character of the displacement: for anteversion the dorsal decubitus must be maintained, for retroversion the abdominal, for lateroversion the opposite side, etc. Should the uterus assume its abnormal position it must be replaced, and thus trained as it were to remain in its normal position. The results of posture may be materially aided by the observance of the proper hygienic and dietetic regulations suited to the case in hand, and especially by the administration of a remedy directed to the predisposing cause, suited to the diathesis of the patient, and strictly homœopathic to the totality of the symptoms present. Admitting the vast resources of homœopathy, its universal applicability, the amplitude of its Materia Medica, the accurately ascertained range of action and remedial powers of its drugs, their direct, specific, and almost undeviating effects, we are almost irresistibly led to the conclusion that no adjuvant or supplementary treatment is ever necessary to effect a complete and rapid cure of every affection which will yield to any other known means.

But while we may correct dynamic disturbances, subdue inflammation, assuage pain, arrest hæmorrhage when not resulting from traumatic causes, and even counteract inherited tendency to certain forms of disease, by the administration of a drug indicated by the totality of the symptoms, objective and subjec-

tive, we must not lose sight of the fact that the animal economy is purely mechanical in the formation and arrangement of all its parts, from the largest organs to the smallest cells which are subject to physical laws, and that a displacement of the uterus involves a physical condition dependent on mechanical influence and subject to physical laws. Except in secondary displacements, such as occur, for instance, from the pressure of large abdominal tumors, etc., on the uterus, a malposition of the organ is essentially a disorder of place, a mechanical disarrangement of parts, and however successful the employment of drugs may prove in removing the complications, their therapeutical power to correct the mechanical conditions unaided by physical forces is a matter of very grave doubt.

The displaced organ having been restored to a normal condition, the force of gravity under favorable circumstances may be sufficiently overcome by a persistent maintenance of the horizontal posture, to enable its natural supports to keep it in place. But however efficient in itself the postural treatment may be, its adoption in a multitude of cases is utterly impracticable. Many poor women afflicted with uterine displacements are dependent on the labor of their own hands for subsistence, whose occupations require them to be on their feet for many hours daily, such as cooks, laundresses, nurses, market-women, teachers, etc., who cannot avail themselves of the benefits of postural treatment.

Hence, in all such cases I would employ some suitable mechanical appliance to maintain the uterus in place, as auxiliary to medical and hygienic treatment. I use abdominal supporters and pessaries, on the same principle that I employ a truss after having reduced a hernial tumor, to prevent a recurrence of its protrusion, or splints and bandages, or other suitable appliances, after having reduced a fracture, to keep the fragments of broken bone in apposition.

As before stated, to restore the uterus *in situ naturali*, while the patient is in the recumbent position, is not usually difficult; but to retain it there when the body is vertical, the broad and round ligaments elongated and relaxed, and gravity acting on the abdominal viscera and uterus unopposed, is quite another

thing. The exigencies of the case require the employment of some artificial support for maintaining the organ *in situ*.

Any device, however, for this purpose should be so constructed and adapted to each particular case as not to cause restraint of the free action of a single muscle, or the compression of a single nerve, bloodvessel or cartilage; while it should keep the uterus in its normal position, its yielding and concordant action with the natural mobility of the organ, should be such as to afford rest to the weakened natural supports, until their integrity is sufficiently restored to fulfil their natural functions.

It would be interminable, as well as useless, to describe the innumerable forms of pessaries, abdominal supports, corsets, braces, etc.

When used great care should be exercised in their selection, as different patients, peculiar modifications of the displacement, or some complication, may require not only instruments of various sizes, but of diverse forms, to fulfil the special indications. Each pessary should be adapted to its particular case, and adjusted with as much care and precision as a dental plate is fitted to the mouth. And since all danger from their use may be obviated with proper care in their selection and adjustment, and experience bears ample testimony of the relief which their judicious employment secures, these auxiliaries should not be rejected because of their antiquity or of their having been empirically used. Their use is no disparagement to homœopathy, and as auxiliaries of medical treatment, suffering humanity is entitled to their full benefits.

4. *The Restoration of the Uterine Supports to their Natural Integrity.*—When a displaced uterus is restored to its normal position and maintained there, either by the recumbent position or by well-adapted artificial support, the atonic and elongated ligaments are relieved of all overtension and left free to contract. The general physiological law which disposes the muscular tissues of the body to contract when not antagonized, is of great practical value in the treatment of uterine displacements. Since it is impossible from their location to make any direct applications to the round, broad, and sacral ligaments, the importance of retaining the uterus in its normal position must appear the

more evident, inasmuch as it affords rest to the overtaxed supports.

As it is reasonable to presume that the uterine supports partake of any general muscular debility, it may be logically inferred that any systemic measures, hygienic, dietetic or medicinal, that will promote bodily strength and vigor, will also impart tone and integrity to the hitherto atonic and relaxed uterine supports.

The physical obstacle to their contraction having been overcome, either by posture or by well-adapted mechanical support, the morbid basis on which their enfeebled condition depends may be overcome and a recurrence prevented by improving the tone of the whole system, by a wise observance of the laws of hygiene on the part of the patient, and the *law similia* on the part of the physician in the selection of the medicinal agents indicated.

SECTION XII.

REPORT

OF THE

BUREAU OF PÆDOLOGY,

N. R. MORSE, M.D., ... Salem, Mass.
D. S. SMITH, M.D., ... Chicago.
F. R. McMANUS, M.D., ... Baltimore, Md.
EMMA SCOTT, M.D., ... New York.
T. C. DUNCAN, M.D., ... Chicago.
F. B. MANDEVILLE, M.D., ... Newark, N. J.
J. H. PULTE, M.D., ... Cincinnati.
C. W. SONNENSCHMIDT, M.D., ... Washington, D. C.
L. M. KENYON, M.D., ... Buffalo, N. Y.

TO THE

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OF THE

American Institute of Homœopathy.

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V.

NATURE AND DIAGNOSIS OF SCARLET FEVER.

By L. M. Kenyon, M.D., Buffalo, N. Y.

Nature.—Scarlet fever is an epidemic and contagious exanthemata, prevailing at all seasons of the year, but more especially during fall, winter, and spring, every change of weather, especially from dry to wet, aggravating all existing cases, and frequently producing a fresh crop of new ones. It is characterized by an intense continued fever, an eruption, generally of a scarlet or deep red color, and an inflammation of the mucous membrane lining the mouth and throat, more or less severe.

So far the course of the disease is usually pretty uniform, but beyond this hardly any two cases will present the same train of symptoms. While with one the above will constitute all there is of importance, by far the greater number will, within a few days, if not hours, manifest symptoms of a more grave and serious character. Scarcely any disease with which we are acquainted presents so great a variety of symptoms during its course; hardly an organ or tissue in the system that does not in some manner suffer more or less seriously, either during its course or as a sequel. The nervous system frequently feels the shock of the disease from the onset, and death results in a few hours from the first indication of trouble. Yet the most common and serious difficulties arise from the complications or the sequelæ. Against these, skilful treatment, the most careful and judicious nursing, and favorable surroundings avail very little, as in the same family we frequently see one mild case, while others will present a long and formidable train of violent and serious symptoms; and again, a case which to all appearances is running a

mild course, with nothing to excite alarm, suddenly and without any apparent cause assumes alarming proportions by reason of complications springing up, and becomes fatal perhaps in a few hours.

DIAGNOSIS.—During every epidemic of scarlet fever, cases will be met with in which the diagnosis is plain; usually in a majority of cases it will be so, but unfortunately it is not so uniformly, as many cases will present themselves showing a variety and combination of symptoms utterly setting at defiance all laws of nosological arrangement.

We are told by most writers that scarlet fever is generally ushered in by certain premonitory symptoms, viz., soreness of throat, chilliness or even severe chill, malaise, slight catarrhal symptoms, etc., etc. I have seldom found this to be the case. I have occasionally in the case of an adult found some chilly sensation as the first indication, and sometimes have found a child complaining of sore throat a few hours preceding the attack; but almost uniformly I find the first symptom that of vomiting, frequently coming on suddenly, even while the child was at play, and when there was no suspicion of its being sick. During the vomiting I frequently find very severe chills, even in very young children. The vomiting is often very severe and persistent, so much so as to exhaust the little patient almost fatally at the onset. The persistence of this symptom I think frequently indicates in some measure the violence of the attack and nature of the case we have in hand. It generally continues at least until the eruption shows itself, and frequently much later. Almost simultaneously with this comes the fever, with the peculiar dry, burning, stinging heat of the surface; temperature at this early stage frequently 103 to 104; pulse, 140 to 160, and even beyond the point of counting. There is generally urgent thirst, great dryness of mouth, tongue soon becomes heavily coated white, except the edges, which are deep red, papillæ frequently showing fine red points through, especially towards the end, entire loss of appetite, great restlessness, tossing to and fro, frequently screaming and delirium, and sometimes convulsions. The throat symptoms generally come on during the vomiting, although not uniformly so; the fauces, uvula, and arches of the palate are found

of a deep red color, the tonsils more or less swollen, with very considerable difficulty in swallowing. The eruption is also manifest about this time, first being seen upon the neck and upper portions of the chest, and spreading from thence over the body. It is a closely crowded fine rash, slightly punctate, rapidly coalescing, and thus becoming general or confluent, of a bright red color, and as it becomes confluent, nearer to a scarlet, giving then the boiled lobster appearance. I have, however, often seen it from the first assume a very dark or almost livid appearance, and remain so through the entire course of the disease. On the face the flush of the intense fever frequently hides the rash; with it there is frequently very considerable turgescent appearance of the face and forehead. Sometimes we find patches of skin here and there entirely free from redness, or of a pale color, giving a mottled appearance. The eruption generally covers the entire body within the second day, yet cases occur where the third or fourth day are reached before it is fully developed.

The above is very nearly the course of a case which may be said to run a regular course, but we perhaps meet with as many if not more cases which do not pursue this course, and are termed irregular. I have met with cases in the same family so widely different that only by taking the whole could they be considered as the same disease. Two sisters, aged respectively five and eight years, were seized. The eldest was taken with all the ordinary symptoms, except angina, which was entirely wanting. There was vomiting, intense fever, eruption well developed, running a regular course, followed by desquamation, during which sore throat came on very severely, tonsils ulcerated, diphtheritic patches seen, cervical and submaxillary glands very much swollen, and very great prostration. The youngest was taken the eighth day following her sister, with severe sore throat, vomiting, high fever, intolerable restlessness, great thirst, but no eruption until the ninth day, when the throat symptoms had all disappeared; then the eruption came out quite freely, ran its natural course, followed by desquamation.

I have frequently during the prevalence of the disease met cases presenting all the appearances, except little or no rash, which at other times I might hesitate to call scarlet fever, but

at such times can have no doubt. Again, we get cases with severe nervous irritation from the commencement. A child, seven years old, was taken suddenly while at play (although she had several times said her head ached), with intense fever, skin dry and hot, could not count the pulse, throat very sore, tonsils covered with thick tenacious mucus, almost total inability to swallow, delirious, vomiting but little, hands and feet icy cold; in four hours from first complaining violent convulsions came on, recurring every thirty to forty minutes, lasting two to four minutes. This continued four hours, the left side was paralyzed, and for about ten hours she was in a state of complete coma. As consciousness began to return, violent vomiting came on of green water, verdigris color, also green, watery stools, and then came the eruption slowly at first, but complete, followed by thorough desquamation and entire recovery. (Cuprum aceticum was given mainly.) Rheumatic troubles are more frequently a sequel, but I have lately met with quite a number of cases where the child has complained of aching in the knees, ankles, wrists and elbows, and in a few cases some swelling, but in many cases there would be pain enough to keep the child in bed. This has lasted from two to four days. In every one of these cases there has been no vomiting, fever developed slowly, eruption not very full, very little angina, desquamation in all cases, and every case coming on in this manner has had more or less severe nephritis, or acute Bright's disease, followed by dropsy, and long tedious convalescence.

I have recently met with an irregular case which I think worth noticing. In a family of five children living in two small rooms, two children came down with scarlet fever; one case very slight, the other more severe, yet presenting no unusual symptoms. The ninth day an older boy ten years old began complaining of pain when urinating. Urine was scanty and quite heavily loaded with albumen. Second day the face was considerably bloated, and this went on to the twelfth day, when the eyes were completely closed, the nose almost obliterated, the whole body enormously bloated, abdomen distended; the most complete case of general dropsy I ever saw; could not breathe except in perfectly upright position; with all this no fever, no thirst, no

nausea, but very little appetite, and great exhaustion. At this time a prescription was repeated, after an interval of a few days (Apis mel.), with marked success, the whole case improving rapidly; in three days nearly all dropsical appearance was gone, an enormous quantity of lumbrici were passed; then came genuine scarlet fever rash, with very much less fever than usual, but pretty severe ulcerated sore throat, and followed by as thorough peeling as I ever saw, the feet shedding their coat almost in the shape of a shoe. I have thus attempted to show some of the irregularities occurring at the commencement of the attack as I have met them in my own practice, the irregularities occurring at a later period not coming so thoroughly within the scope of this paper.

There will generally be no great difficulty in determining between scarlet fever and measles, yet when both have been prevailing at the same time I have found trouble in determining the matter. The fever of scarlet fever is more intense, the heat of the surface indicating generally four to six degrees more during the first and second days at least.

SCARLET FEVER.	MEASLES.
Generally ushered in with vomiting.	No vomiting, or seldom.
No catarrhal symptoms, or only very slight.	Always marked catarrhal symptoms, cough, sneezing, etc.
Angina generally very severe.	Little or no sore throat.
Eruption generally shows within twenty-four hours.	Eruption frequently from two to three days in developing.
Eruption appears first on neck and chest.	Eruption appears first on face and head.
Generally becomes confluent.	Seldom does so.
Generally scarlet red color.	Generally dark or bluish-red.
Spreads rapidly over body.	Spreads more slowly.

The differential diagnosis of scarlet fever and roseola, rötheln, or German measles, I have in many cases found more difficult, especially so in mild cases of the former and more severe ones of the latter. The most marked points of difference are that the fever of roseola is generally slight, lasting only two or three days at most. I have never seen the heat rise above 100° in any case. It is much more frequently ushered in with

chilly or catarrhal conditions; the eruption is seldom of the bright scarlet color, and very few cases produce the prostration belonging to scarlet fever. The cases I have seen have nearly all been so slight as hardly to require the child to be kept in bed. Yet I have, in several instances this spring, called the case roseola, when severe scarlet fever was the result of exposure of other children. My observation of roseola has not been sufficient to enable me to give a more clear idea of the points of difference between the two diseases.

The resemblance between scarlet fever and any other disease, cannot be close enough to mislead any one more than a few hours at least, if at all.

My observations with the thermometer have not been very extensive. I have found, however, an almost uniform result; the heat of the body showing very little variation after the first twenty-four hours until the subsidence of the eruption. I have generally found as high as 103° marked within the first twenty-four hours, and in most cases 104.5° to 105° would be reached during the second or third day. I have occasionally seen a slight variation between morning and evening, but not generally. I have seen 105° held from the second day until the eruption was well faded out on the ninth day.

Dr. Fuller, of our city, informs me that in all his observations, from the second day until the eruption fades, 104° is the average temperature.

VI.

ETIOLOGY AND PROPHYLAXIS OF SCARLET FEVER.

By Nathan R. Morse, M.D., Salem, Mass.

The cause and the prevention of this common but often dreaded and malignant disease, are subjects of the deepest interest to us and our profession. The happiness of the family, the welfare of society, and the interests of the state, alike demand that we seek out the true cause or causes and suggest the proper and safe prophylaxis.

Daily experience teaches us that scarlet fever is contagious, and that its *cause* is a specific substance which is transmitted from the patient affected to the unaffected one. The evidence in support of the contagiousness comes chiefly from the fact that the disease breaks out among a few or many persons susceptible to the poison in a community, *only* after the material cause of the contagion has been introduced into that locality, either through the medium of any substance to which it adheres, or directly by the scarlatinous patient himself, or a third person, who has been in communication with him, his clothing, or the apartments in which he was sick, and then as a rule only a short time intervenes after the introduction of the infection, and still further from the fact, that these recently affected individuals produce an infection *identical* in its properties to the contagion with which they were affected.

It is a well-established fact that not all children or individuals in a locality become affected, nor is the susceptibility to this peculiar poison universally or equally developed.

All of us have witnessed more or less cases of this disease after it has been in some way introduced into a school, hospital, or locality by a scarlatinous patient, but when the contagious principle has never been introduced and obtained a foothold there, scarlet fever has never shown its hydra head, according to the best authority I have been able to consult.

The proof of this last assertion is gathered from the fact that isolated regions, particularly islands, enjoyed perfect immunity from the disease up to the time when the ingress of the contagion gave rise to an extended epidemic. Other regions and islands became infected only after European or American commerce carried there the contagious principle.

Isolation also of scarlatinous patients, especially children, in families and hospitals, has prevented the further spread of the disease, and similar results are daily obtained by the thorough disinfection of the various articles of furniture or clothing which may have been in the same room or atmosphere with the infected patient.

A further evidence of the contagiousness of scarlet fever is obtained from the well-authenticated fact that the infection or poison is communicable by inoculation from the diseased individual to the healthy one. According to Ziemssen, "Miguel reported to the French Academy, that he had inoculated a number of children who had never had the disease, with the contents of vesicles from scarlatinous patients; thirty hours after, there appeared at the place of inoculation a red areola, which corresponded in every respect to the scarlatinous eruption; this redness increased for three days, and disappeared on the fifth day; the inflammation was not traumatic, for a second inoculation in the same individual had no effect. It appears, too, that children who had been successfully inoculated were not affected subsequently, when there was abundant opportunity for infection." Rostan cites cases in which the eruption of scarlet fever appeared seven days after inoculation.

Stoll and others successfully inoculated children with scales of epidermis, introduced under the skin of those not previously infected.

Clinical observations, combined with such experiments, would

seem to show that the *infectious* poison is present somewhere in the *skin* of the patient affected. It no doubt exists in the *pulmonary* exhalations, since contact with the morbid atmosphere of the sick-chamber is alone sufficient to produce the disease. Other *secretions* and *excretions* may also be the vehicles of the contagion, such as the nasal and pharyngeal, the urine and the fæces.

That the *blood* circulates the poison also is sustained by the fact that children have been born with the disease, and inoculations with scarlatinous blood have produced all of the characteristic symptoms of the disease. Experiments conducted by Coze and Feltz upon rabbits confirm the fact that the blood circulates the poison.

According to Hallier and others, the blood of scarlet fever patients contains micrococci; microscopic infusoriæ in great abundance. Riess injected a few drops of blood, which he drew from a scarlatinous patient, containing these micrococci, under the skin of a rabbit, with the effect of producing colonies of these same micrococci in the blood of the rabbit, which died in twenty-four hours; and inoculation with this same blood produced identical results in others.

Such experiments go to prove that the contagious principle having entered the blood, is circulated by it throughout the entire system, and moreover that it stands in intimate connection with those vast microscopic spores or colonies of micrococci which are found in the blood of scarlet fever patients. Therefore the fact is not so strange that the exhalations of the lungs and skin, and that the secretions and excretions, should contain the infectious principle.

Only a *brief* contact with the infectious principle or the contagious atmosphere of the sick-chamber may be sufficient to produce the infection in those susceptible to its influence. I have noticed this fact in several instances in my own practice, where the child was exposed only a brief time; in one case less than five minutes. Thomas, in his monograph on scarlet fever, relates that "a mother after remaining only a moment with a scarlatinous patient, immediately returned home, a distance of six miles, but communicated the disease to her children, in whom it ap-

peared in a few days." Hennig also speaks of a child who was affected only four days after having been but a short time in the company of another child, who had been taken sick with scarlet fever six weeks before. My first cases of scarlet fever the past winter occurred in this way: A young lady spent a short time on Monday P.M., January 26th, 1875, with a young lad who was convalescent from the disease. She soon left and walked nearly a mile to the house of Mr. D., where she spent the night, and slept in the same bed in company with two of his children. In just seven days the first child, a boy of six years, sickened, and on the eighth day the second child, of eight years, fell sick; both had the anginose variety and were very sick, but recovered, the girl having a large abscess on each side of the throat, which I was obliged to open. Master Willie, a lad of eleven years, played a short time on the street, April 22d, with another boy who had had scarlet fever some five years previous, but who had a little brother eighteen months of age sick in the house with a severe form of the disease. Willie sickened in five days after that brief exposure, and I was called to attend him on the 28th. He had a high short fever, but it ran a normal course, the eruption smooth and very profuse upon the body and lower limbs, but vesicular upon the arms.

Attentive ventilation of the sick-room and the use of disinfectants very much diminishes, and in some instances undoubtedly destroys the opportunity for infection. And yet several cases have occurred under my own observation, and that of others, in which the family took the precaution to move out of the house and thoroughly air and clean the apartments of the same, as they thought, and upon their returning to occupy the same, or another family moving into the house, the fever broke out again.

The statement that scarlet fever can be transmitted to unaffected individuals through the media of substances or clothing which have remained in the contaminated atmosphere, is unquestionably proved by numerous examples. The cases of spontaneous origin, so-called, *must* and *can* be accounted for in this way. Watson relates in his practice the following, which illustrates this point quite fully: "The disorder had attacked several

persons in a large household. When it was fairly over, the house was left empty, and then, as was supposed, most thoroughly ventilated and purified. A year afterwards the family returned to the house. A drawer in one of the bureaus resisted for some time the attempt to pull it open. It was found that a strip of flannel had got between the drawer and its frame, and had made the drawer stick. This piece of flannel the housemaid put playfully round her neck. An old nurse who was present, recognizing it as having been used for an application to the throat of one of the former subjects of scarlet fever, snatched it from her, and instantly burned it in the fire. The girl, however, soon sickened, and the disease ran a second time through the household, affecting those who had not had it on the first occasion."

According to Dr. Thomas, Richardson attributed the infection and death of a child and its mother to a letter which the former had conveyed to the latter from a house several miles distant, in which scarlatina had prevailed. Moore maintains that a piano, which stood in the sick-room, was the only means of contagion. Hildenbrand, without the agency of scarlatinous surroundings, became infected by wearing a coat which had been worn formerly upon visits to scarlatinous patients, and had been stored away for eighteen months. Murchinson believed that he had met with a few cases where a letter or lock of hair was the carrier of the contagion.

Milk which had been exposed for a time in a kitchen which had previously been used as a hospital for scarlatinous patients produced, according to the observations of Taylor, cases of scarlet fever in six out of twelve families who used the milk without any communication with the carrier of the milk, and when the disease was not epidemic.

It is an undoubted fact, that unaffected individuals who have nursed scarlatinous patients may spread the disease quite likely by the medium of their clothing.

I have observed many such instances. My first cases the past winter occurred in a similar way, only the lady who infected the children was exposed but a short time. Indisputably physicians have spread the contagion in many instances. Thomas also re-

lates a case where a nurse, coming directly from a scarlatinous patient, communicated the disease in the short space of three hours to a child who had almost recovered from tracheotomy. Mrs. C. sat up with a little child sick with scarlet fever on the night of Thursday, April 22d, carried home the disease to her little boy, who was taken sick on the Sunday following, April 25th.

The contagion of scarlet fever it is asserted may be communicated through the medium of animals to susceptible individuals in the same manner as by human beings, and undoubtedly they, the animals, may be affected with a similar disease. According to reliable authority it has been observed in the cat, dog, horse, swine, etc.

I think it still an open question whether the disease so noticed in animals is really produced by the contagion of scarlet fever, or that animals thus affected may in turn infect man; but reliable authority appears to point strongly in that direction.

The *tenacity* of the contagion is most remarkable, and goes to prove that it is not a volatile gas, diffused through the atmosphere, but a solid substance which adheres with wonderful tenacity to clothing, etc. Dr. Whiting, of Danvers, Mass., noticed the past winter that a child who had been isolated in the lower part of the house during the sickness of the family upstairs, came down with the disease on going upstairs to sleep six weeks after the recovery of those upstairs, and after a thorough disinfection had taken place. I have noticed similar cases three months or more after the disease had existed in the house or locality. The case cited from Watson and the coat of Hildenbrand well illustrate this point.

The stage of *incubation* or period of germination is found to be *variable*, not constant, as in measles and variola. Careful observation by many observers, and in various and remote epidemics, are needed to fix the limits. I have noticed only a few cases during the past few months which give me reliable data on this point. Two children of Mr. D. sickened, one on the seventh and the other on the eighth day after they were exposed by sleeping with the young lady who was herself exposed on the afternoon previous, and brought the contagion in her clothing.

An infant child of Dr. B., dentist, twenty months of age, was exposed to his sister's child, a girl of eight years, on Wednesday at 4 P.M., the girl having been taken sick and vomited on the way and just as she entered the Doctor's house, when upon examination she showed the characteristic eruption of scarlet fever upon the face aud neck. Dr. B.'s child exhibited the first symptoms of the disease at 1 A.M. the Monday following, just four days and nine hours from the first moment of the only possible way of infection. The young girl was exposed just five days previous, to an elder brother sick with the rose rash, so-called by Dr. Q., old school, but subsequent desquamation proved it to have been scarlet fever, aside from the characteristic cases which followed therefrom.

Thursday, April 29th, Master M. played with a lad who had formerly had scarlet fever, but whose brother was then sick in the house with it. Master M. was taken sick on the Saturday night following, and I saw him on Monday, May 2d, the eruption just appearing on the face, neck, and chest; no other possible means of infection, which occurred within less than three days.

Trousseau cites a case in which the evidence is almost conclusive, that the period of incubation was less than twenty-four hours. Thomas makes mention of several observers who have seen and recorded cases where the period of *incubation* lasted an incredibly short period, from a few hours only to that of twelve or fourteen days.

Dr. Morse, of Marblehead, states that in all of his cases where the absolute period of incubation could be determined, it ranged from three to eight days. Dr. L. M. Kenyon, of Buffalo, writes that in records kept during the past winter of eighty-four cases, seven came down on the fifth day from exposure, twenty-three on the sixth day, thirty-nine on the seventh day, eight on the ninth day, and six were as late as the tenth to the fourteenth day, and one was over three weeks.

Many contend that twelve to fourteen days is the true time or period of incubation, as it corresponds with the period in measles and variola. From all the data which I have been able to examine, and my own extended experience, which largely confirms the same, all go to prove the period of incubation to be about

one week or seven days. Scarlatinous inoculations bear record of the same or a shorter period. Individual susceptibility may have much to do with the longer or shorter stages of incubation noticed by all observers, and undoubtedly variations in the *intensity* and contagiousness of the disease may have their influence. Variations in the incubative stages of scarlet fever have been noticed by us all, and in this respect it differs from all the other acute exanthemata.

Individual susceptibility is more variable and less certain than in either measles or variola. The earliest moment in which the scarlet-fever patient may communicate the disease, and the length of time in which he is capable of infecting others, is one of the most important and practical points in a prophylactic view, if not the most difficult question to answer, on account of the great differences in individual susceptibility; for it is only where this susceptibility exists that we can prove the contagiousness of the poison, since neither microscopical examination nor chemical research have been able to detect it in the secretions or excretions of the patient; and again, on account of the great *tenacity* of the poison to cling to objects and clothing, already alluded to.

This last fact makes it difficult to determine whether an infection by a scarlet fever patient, during the last stage of the disease, was generated at the moment of contact or exposure, or produced at an earlier stage of the disease, and which, on account of its great tenacity, had remained latent and retained its vitality up to the time of the present contact. We are inclined to the opinion that it is not possible, or next to impossible, to impart the *infection* previous to the commencement of the *eruptive* stage, that is, during the period of incubation, and that the power of infection lasts through the period of desquamation, and quite possibly through the dropsical stage, if such follows, since it is presumable that the contagion enters from the blood into all the secretions and excretions of the person affected.

If the infection can take place at an earlier or later period in the disease, it must be due to individual susceptibility or predisposition to the same.

No one will deny that the infecting power of the disease diminishes as the health of the patient becomes restored, but the

absolute time when it ceases, it is not possible with our present knowledge to determine.

It is an established fact that the *predisposition* to the disease is not so universal as in measles and variola, since many families entirely escape the disease, though exposed to the infection; while very few escape measles or variola, if so exposed, unless protected by a former attack or by vaccination. In my father's family of eight children, who are all living and grown to manhood, not one ever had scarlet fever in any form, while all of us had measles and were sick at one time.

Intense *family* predisposition is not uncommon, but shows itself in repeated attacks as soon as one member of the family is affected.

Other members, unprotected by a former attack, become affected, and generally with a severe type of the disease. I have, in several instances, observed the disease in the same family two, three, and even four times, subsequent attacks being generally confined to those born after a former occurrence of the disease. I have in mind one family where the disease occurred at four different times, and all, save the youngest child, have had it twice, and the parents still are exceedingly anxious lest she, the *youngest*, may contract it again whenever a new epidemic occurs in town. Happily such marked predisposition to acquire the disease is exceptional, and is not accounted for by the greater severity of the poison, since mild cases occur from the most malignant, and *vice versâ*.

It is not uncommon to observe that when scarlet fever enters a family consisting of several individuals, only one or two members are attacked, while the others escape altogether, though but slight, if any, precautions are taken in regard to isolation. This immunity appears to last for a lifetime in some, while others will become a prey to the disease in a subsequent epidemic.

Quite likely the mental influences of hope, fear, etc., as well as the physical condition of the individual, may exercise protecting or predisposing influences. It is asserted that communities that have enjoyed immunity from an epidemic of scarlet fever for a long period, do not seem to be markedly susceptible to the influences of the contagion. In this respect it differs widely

from measles and variola. It appears, however, that in some instances persons who are not predisposed to the infection, acquire that predisposition after having been exposed to the influence of the contagion during a protracted epidemic. A case in point occurred a few days since in the town of Peabody. A young man of seventeen or eighteen years of age who was returning home to his dinner on Tuesday noon, two members of the family having recently died, remarked to a friend of mine, that he did not believe it to be contagious, as he had not taken it, but he was taken sick that night, and died in less than twenty-four hours from the disease.

Predisposition, no doubt, has much to do with the power of acquiring or warding off the disease. We must account for those rapidly fatal cases that die in twelve and twenty-four hours from the commencement of the attack by this extraordinary predisposition to the disease, which seems to exist in some instances or families, quite as much as by the intensity of the contagion or epidemic. This *predisposition* appears to predominate in young children from one to three or five years of age.

Martin F. had scarlet fever when four years of age. Eight years after his sister was taken with the disease, and on the seventh day of the same, after eating boiled lobster the night previous, he was taken sick with vomiting at 3 A.M. the following morning, and died at 11 P.M. of the same day, exhibiting all the appearances of a malignant type of the disease. The lobster, we think, acted as a ferment in rapidly multiplying the intensity of the infectious poison in the blood.

I recall another family which seems to bear on this point of predisposition. Mr. and Mrs. F. had lost, at two different times, an only daughter with scarlet fever, between one and two years of age, each one dying in less than thirty-six hours from the commencement of the attack. Subsequently they had a third only daughter, and she also was attacked suddenly at 1 P.M. in the same way. I received a dispatch at 8 P.M. of the same day to visit her, eleven miles away, that night, which I did, although one of the severest snow-storms of the winter was raging at the time, but was amply repaid by the recovery of the child. All

the other children, three boys, in the same family, had the disease previously.

Experience and statistics both show that *social position, external surroundings*, nutrition, and manner of living have no slight influence on the mortality of scarlet fever, but appear to have less influence on the predisposition to acquire the infection, and these result quite as much from the better hygienic conditions and surroundings, and the better protection by isolation which the affluent possess over the poor and indigent.

Affluence itself has no influence; it is the surroundings which it affords, and the special predisposition which some possess or acquire, that exert their controlling power. Scarlet fever marks its victims among all grades and stations in society, and there is no marked difference in the rapidly fatal cases; wealth alone affords no special protection.

The reason why there are a greater number of scarlet-fever patients and a larger per cent. of deaths among the poorer classes, is to be attributed to the want of ventilation, nutrition, and care; not to hereditary predisposition.

Conditions of soil and subsoil, drainage and sunlight have their influence. I have frequently noticed that in one locality or village scarlet fever prevailed with great severity, while in another locality or village, but shortly removed, there was entire freedom from its ravages, or possibly a few sporadic cases of a mild type might appear, and yet active intercourse prevailed between these places.

Such was the fact, two years since, in the neighboring town of Beverley, Mass., just opposite to our city. There a malignant type of the fever prevailed nearly all winter and spring, but few families who had children escaped its ravages, and yet we had scarcely a single case in Salem. I also recall a locality or neighborhood in my native town some years since where not a single family escaped, and more than fifty per cent. of those attacked died. It prevailed in no other section of the town. Other physicians have noticed similar instances. It may be explained by conditions of soil and subsoil, independent of human agency, as in the etiology of typhoid fever, etc. Other factors remaining the same, in that locality which has a damp clayey soil or subsoil,

with bad drainage and poor sunlight, there, as a rule, will the disease be more malignant in its type and less likely to rapidly disappear.

The overcrowding of children into narrow and ill-ventilated streets must therefore increase the malignancy and spread of the disease.

Age appears to have a marked influence on the individual predisposition. Children under six months of age are rarely attacked with the disease, but the predisposition gradually increases after six months to one year, and becomes strongest from the first to the fifth year, and gradually decreases from the fifth to the tenth year, and after the tenth rapidly diminishes, so that adults have only a slight predisposition, and the aged still less. I have noticed only two cases, which I now recall, under six months of age. One occurred about seven days after birth; the mother was taken sick the second day after confinement and the baby five days after the mother; the other child was nearly three months of age. I have met with only one case above sixty years.

It may be maintained by some, as has been asserted by others, that the predisposition in childhood is no greater than in adult life, and that adults only escape the disease because they experienced it while young. Such assertion I think is not tenable, since, as a rule, from one-third to one-half escape the disease in childhood and reach adult life, and are therefore unprotected by any former attack of the disease, while a very small percentage are affected afterward, no matter how often and how favorably exposed.

Cases have been reported where children at birth had the disease, but they seem to rest upon doubtful authority, and yet I can see no reason why such may not occur, since variolous mothers, or those who, during pregnancy, have been exposed to the contagion of small-pox, have given birth to infants affected with variola.

Sex appears to exercise but slight, if any, controlling influence over the predisposition to acquire the disease. According to English statistics, collected by Murchison, more males than females were affected under five years of age, while more females

than males were attacked above five years of age. Young boys are more frequently affected because their number exceeds that of the other sex, and more women among adults, from the fact that they have more frequent opportunities for infection, on account of their close attendance upon their sick children.

Occupation, save that as nurse, servant or physician in hospitals or families where the disease prevails, has no perceptible influence over the predisposition of the individual so far as known.

Another interesting point arises, whether previous diseases, such as measles, variola, etc., increase or diminish the susceptibility of the individual to the infection of scarlet fever. It is my opinion that where the system is enfeebled from any such cause or causes, the liabilities to contagion are thereby increased. Particularly is this the case in those exposed after surgical operations and in lying-in women. Dr. N., of A., related to me a case the other day, where a young lady died a few days after confinement, with symptoms which indicated without doubt infection carried to her, unknowingly at the time, by the doctor himself, who had, previously to visiting her, opened one or more abscesses on a child convalescing from scarlet fever. Quite likely many of the so-called cases of puerperal fever occur in a similar way.

The influence of race on the predisposition to scarlet fever is still an open question. My experience has been so limited in that direction that I am not able to form any satisfactory opinion on account of the conflicting statements made by different observers.

It will not be denied that scarlet fever as a rule should be associated with that class of diseases which occur but once, and yet there are undoubtedly a small percentage of exceptions to that rule, as is the case in the other acute exanthematic and infectious diseases. I have met with several instances where the patient had a second-class attack, although the first infection was severe and in some cases protracted, according to my own observation and the well-authenticated statements of the previous nurse and physician. Undoubtedly many of the reported *second* infections have not been well-developed cases of scarlet fever, or they may have been confounded with rotheln; but laying aside

all of the doubtful cases in which the characteristic eruption and the angina are wanting, I have met with not less than eight or ten cases well marked during the past thirteen years. Two of them occurred in one family, showing an hereditary predisposition to reinfection. In one well-marked case the first infection occurred at the age of ten years, when, according to the mother of the patient, an intelligent and experienced nurse, and the doctor who attended him, there could be no possible doubt. The reinfection in the above case occurred at twenty-eight years of age, the fever and angina were both severe, and the desquamation which followed characteristic. In other cases noted the reinfection occurred in varying intervals, from one to ten years after the first attack. I exclude all cases where there could be any reasonable doubt.

Cases are reported, according to the statements of Thomas, where reinfection occurred the third and fourth time.

Scarlet fever may appear either in a sporadic or epidemic form; nor do isolated cases prove that it ever has a spontaneous origin, through the agency of certain atmospheric or telluric influences, at present unknown to us. And yet it is with the greatest difficulty that we can trace the origin of the contagion in many instances; but when we bear in mind how easily it may be transported to great distances, and how long it may adhere to various substances in a latent condition, it is hardly possible to prove or persuade us that it has a spontaneous origin in a single instance. Thomas says, "There is abundant evidence that scarlatina has never occurred spontaneously in the isolated islands of any latitude, but that it has always been introduced from without by persons or substances."

The *influence of seasons* on the prevalence of this disease has been noticed. In England, where the greatest attention has been paid to the subject, the *fall* has exhibited the greatest prevalence and the *spring* the least. The same thing has been observed in Germany; but in France, according to Murchison, epidemics of scarlet fever have been more frequent during the spring and summer.

So far as my own experience goes, the latter part of winter, spring, and the early summer have been the seasons in which I

have noticed the largest per cent. of cases. The experience of others verifies the same, as well as the statistics gathered by Meigs and Pepper, who assert its greater frequency during the spring and summer months in this country.

The state of the weather seems to exert no well-marked influence over the spread of the disease or the course of epidemics. It prevails during all conditions of the weather, and yet quite possibly the spread of the contagion may be, in some way as yet wholly unknown to us, influenced by atmospheric pressure, moisture, heat, electricity, etc.

Baker maintains that ozone increases the frequency of scarlet fever, contrary to what is found to be the case in other diseases, and quite likely by increasing the susceptibility of the individual to imbibe the contagion. *Temperature* alone has no power to destroy the infection, unless carried up to almost the boiling-point, 212°. Heat, when carried beyond that point, effectually destroys the power of infection in all articles of clothing or furniture used about the sick-chamber of scarlatinous patients.

It is authoritatively stated that *altitude* or elevation of ground has no connection with the spread of scarlet fever, as in the miasmatic diseases, and that its spread is likewise independent of the geological structure of the soil, whether of granite, gneiss, clay, slate, limestone, sandstone, or mica formation, from the primitive rock to the latest alluvial deposits. I beg to protest against this broad statement, and assert that location and subsoil may and do have some influence over the extent and type of the disease; to what and how great an extent I am unable to determine with my present limited knowledge.

Personal intercourse with those infected will not alone explain why in some localities the disease seems for a long time to rage with great violence, while in other localities, not far removed, the same or even increased personal intercourse does not appear to spread the contagion to any great extent, as only a few cases of a mild form then appear.

I have occasionally noticed this fact, that in one school district or school nearly all the children had the disease, and in a severe form; while in an adjoining district or school, although active intercourse was maintained between them, only a few cases, and

those of a mild character, made their appearance. Again, I have noticed a malignant type of the disease prevail for a season in the same locality, and then assume a mild form, and *vice versâ*. This variable character of epidemics of scarlet fever I think must be due largely to *local* causes, and not dependent upon atmospheric conditions, as is generally supposed, or how else can we account for the *severe* type here, and the *mild* form there, which all of us have noticed to a greater or less extent?

It is to be hoped that continued and careful observations on these and other points may lead to happy results, by increasing our knowledge of the etiology of this important disease, and, as a direct result, aid us in mitigating its violence, or assist us in stamping out its existence. That much *can* and *will* be done in that direction in the near future I cannot entertain a reasonable doubt.

The *prophylaxis* of scarlet fever is one of the most important points connected with this disease. How and by what means can it be most safely and securely attained? We answer, *first*, by the proper administration of Belladonna or other specific remedies whenever the fever makes its appearance in any locality; and *secondly*, by the prompt and judicious removal of the healthy from the sick, or wherever this is not possible, by the seclusion of the sick, and the complete and satisfactory disinfection of the sick-apartment, and every article of clothing or furniture which has in any way come in contact with the infected one.

The patient should have a separate room upstairs, where no one save his attendants should be allowed to enter. All useless articles of furniture should be removed from the patient's room, such as bookcases, wardrobes, musical instruments, everything which collects and retains dirt, dust, etc., together with the curtains and carpets, if the floor is so covered. Thorough ventilation should be exercised in all cases, either by a direct opening of a window into the sick-room, so that the draft may not pass over the patient, or else opening into an adjoining room, and the door between them kept constantly open. The patient should always avoid a draft of air, nor is this to be greatly feared during the height of the fever.

Moreover, the patient should be kept perfectly clean, by fre-

quent bathings and spongings. This is of especial importance during the febrile stage. Every article of clothing or furniture used about the patient or in the room should be thoroughly disinfected. The expectoration, urine, and excrements should be received into vessels containing disinfecting fluids, such as carbolic acid, chloride of lime or soda, etc., and then frequently removed. As often as the clothing of the patient is changed, which should be daily during the febrile stage, it should be disinfected and thoroughly washed in vessels used only for that purpose. The pieces of linen or flannels used about the patient had better be destroyed by fire; in fact, all of the sweepings of the sick-chamber should be destroyed by fire. In like manner the culinary articles used by the nurse and patient, as well as the clothing of the nurse, should be separately washed and disinfected. If the articles are such that they cannot be washed, the best method is to subject them to a high degree of heat, and then give them a thorough airing. The attendants should be instructed to wash their hands in some disinfecting fluid, and they should keep their persons and clothing clean, and change the same whenever they may have occasion to leave the house and come in contact with others; especially should this precaution be observed when they leave and enter into the service of another patient.

To still further prevent the dissemination and spread of the disease, the dusty particles of the infecting epidermic scales, during the period of desquamation, should be washed off night and morning, and the patient rubbed over with sweet oil or lard. This serves a double purpose, the avoidance of infection, and largely the prevention of nephritis, so frequent and serious a sequela of scarlet fever.

The convalescent should not be permitted to mingle with the rest of the family until the period of desquamation has fully passed, and then not till thoroughly washed and the clothing changed throughout.

The apartment in which he was sick, and everything in the room, or used about him, should be perfectly cleansed and disinfected, and the walls of the room should be repapered or painted and allowed to remain open for several days.

The great *tenacity* of the poison, as often observed, warrants the most thorough disinfection possible, and particularly is this the case when the disease is malignant in type, and complicated by diphtheritis or putrid sore throat. If possible, patients sick with scarlet fever should be separated from each other; not more than two should occupy the same room, better only one, for observation and experience have both taught that neglect of this precaution has increased the severity of the disease. Ventilation is of the highest importance.

To prevent the spreading of the disease by means of the healthy, the brothers and sisters of the patient should not be allowed to attend school or visit places of amusement, and this prohibition should be exercised until the entire disappearance of the disease.

The State should exercise control or be responsible for the execution of these precautions during a scarlet fever epidemic. It is of far greater importance than in the case of measles, not only because scarlet fever is far more dangerous, but because with advancing years the child's predisposition to the disease is largely diminished, and quite likely he may escape the disease entirely; not so in measles, as very few escape, and the longer the disease is prevented, or the later in life it occurs, the severity of the disease increases.

Therefore every case of scarlet fever should be made known to the proper authorities in the town or city, and notice posted upon the house where it exists. This precaution should be strictly adhered to, and is scarcely less necessary than when variola makes its appearance. The schools as a rule need not be closed.

I now come to speak *briefly* of the prophylactic virtues of Belladonna. Since the close of the last century, when our illustrious master, Hahnemann, announced to the world his belief in the prophylactic virtues of Belladonna in scarlet fever, down to the present time, its virtues have been variously extolled by the physicians of our school, and as a rule its prophylactic properties have been denied by the other school of practice, although there have been some notable exceptions among the latter class.

Dr. Condie, of Philadelphia, in his American edition of *Watson's Practice*, thus writes: "The question in relation to the

prophylactic properties of the Belladonna in this disease is a highly interesting one. The severe and fatal character of scarlet fever, particularly when it occurs as an epidemic, renders every means of prevention that can be depended upon with any degree of certainty of vast importance," and then quotes the testimony of a large number of respectable practitioners, mostly German and French, who speak in high terms of the prophylactic virtue of this drug, and closes his article thus: "In an epidemic of scarlatina which occurred in South Carolina, Dr. Irwin made a very extensive trial of the prophylactic properties of Belladonna. Of two hundred and fifty children who were placed under the influence of the drug, less than half a dozen had the disease, and that very mildly. In the families, the members of which were not placed under the influence of Belladonna, the disease occurred with scarcely an exception. Dr. McKee, in the extension of the same epidemic, made use of the Belladonna, and derived from it the same protective influence. Dr. Rufus Hammond, of Indiana, also bears testimony in favor of the prophylactic powers of Belladonna, based upon ample opportunities for observation." The reason why many of the old-school physicians have failed to find prophylactic virtue in Belladonna against the spread of the disease is, because they have employed it in too large doses, and have got the poisonous effects of the drug, which would thereby increase rather than diminish the susceptibility of the individual to the disease, and moreover tend to produce complications, since the system has been enfeebled by its use. Possibly a few practitioners of our own school have been guilty of administering Belladonna in too large and frequently repeated doses. That it has prophylactic properties but few of us will deny. I have used it largely during the past thirteen years, always with quite satisfactory results; never more so than during the past winter and spring, giving one dose of the 30th potency morning and night for one week, and one dose every night during the second week, and a dose every other night during the third week. I have not met a second case in the same family if I saw the first, during the past year, although in numerous instances a large number of children were exposed who were unprotected by a previous attack. In one instance no less than nine were back

and forth in the same room with the sick child, and not one contracted the disease.

Dr. Cate, of Salem, says that he has frequently administered Belladonna as a preventive to all the children in the family, and not to the mother, when he was called to attend a child sick with the fever, and in several instances the remaining children escaped while the mother had the scarlet fever. I have noticed the same thing occur in one instance. I now give the Belladonna to all who may in any way be exposed, unless protected by a previous attack. I have great confidence in its proper use, or as above given, especially in the smooth variety or scarlatina levigata. Dr. D. W. Kenyon, of Buffalo, writes thus on this point: "I have used Belladonna and Sulphur as prophylaxis, and my observations lead me to the conclusion that Belladonna is the best and most reliable. I have given uniformly Bell. 30th, a dose every night for three nights, then every second or third day as long as exposed. In many instances one child only in a family has been affected, while two, three, and even six others in the house under the Belladonna have had no signs of the disease, and I cannot recall a case where I have given Belladonna as above, and if the child was attacked the course was not a mild one. Again, I have had two cases where, under direction of an old-school physician, drop doses of fluid extract had been given two or three times a day for several days, and I never had worse cases to treat, with such serious throat symptoms and brain complications, as in those cases. I am thoroughly convinced of the prophylactic power of Belladonna, but think even among our own school too much is frequently given, thereby laying the system open an easy prey to the disease, if not even causing it."

Dr. Black, in the *British Journal of Homœopathy*, presents a large number of experiments made to ascertain the prophylactic properties of Belladonna by different practitioners, and from his statistical tables there prepared, I find that of 3747 persons who took Belladonna as a preventive, 3656 were preserved from an attack of scarlet fever, while only 91 were thus attacked, and in several instances of the latter number, the person affected only took the Belladonna for a day or two; not long enough to expe-

rience its full protection. Many other statistics might be adduced, but are not necessary, as every one of us no doubt can report striking instances of its protecting power. From a brief experience with the use of Rhus tox., I am inclined to think that the Rhus may prove a most valuable prophylactic in scarlatina variegata, or the vesicular variety of the disease. In epidemics of the disease, when irregular forms appear of a malignant and septic character, I would suggest the use of Baptisin, given in the 3d dil.

I am sanguine that the day is near at hand when the *prevention* of this disease shall be considered the great desideratum of society, and government will be compelled to enact such judicious regulations against the spread of the contagion as will provide *perfect* security to the public, either by complete isolation of *any* and *all* cases of infection, or by the proper use of well-proven and thoroughly tested prophylactics, administered to all within the possible sphere of the contagion. Till then let us all earnestly labor in that direction, that we individually may be instrumental in hastening forward that day when it shall be universally acknowledged that the disciples of our school stand foremost in the front ranks of medical reformers and philanthropists.

VII.

CLINICAL SUCCESSES IN AND PECULIARITIES OF SCARLET FEVER.

By T. C. Duncan, M.D., Chicago.

I have the honor of calling attention to one of the greatest triumphs of homœopathy, the prevention and cure of scarlet fever. What is the remedy for scarlatina? was the cry of the sympathetic paternal heart of Hahnemann. Is there no cure? is there no prevention? are questions that are graphically portrayed in the anxious face of Hahnemann as he bends over two sick children, in a picture that hangs in our office, sent us from Bogota, South America. This picture bears the inscription "Hahnemann discovering Homœopathy." His faith in allopathic medicine in this dire extremity is here depicted as utterly died out. In his experiments with the bark, the possible fact of *similia similibus curantur* dawned upon Hahnemann. Sulphur curing scabies threw additional light upon his mind; but when he found that Belladonna was the similimum of scarlet fever, the glories of homœopathy broke on his saddened, dejected heart with all the effulgence of a rising sun. With what transports of joy must he have sent out the words, Belladonna cures scarlatina. No wonder the feeling came over him that it was too good to be true; "The physicians would not believe me. I will put a price on the secret, and then they will be forced to believe, yes, ready to believe when they have paid for it." Another thought struck him: if it will cure it will prevent. This will be welcome news to anxious parents. No prejudice will stand in their way. They will test and give credit where it is due. "Belladonna *will* pre-

vent scarlet fever" has gladdened the hearts of parents all this century. "Belladonna will prevent scarlatina," has been the herald of homœopathy in all countries and in all homes. "Belladonna is the prophylactic of scarlet fever," will echo down the corridors of time till sickness and death are no more.

SUCCESS AS A PREVENTIVE.

An ounce of prevention is worth a pound of cure, is an adage appreciated by all people, and especially by mothers when scarlet fever is about. The grand success of homœopathy has been in preventing attacks of this dreaded disease.

In 1799 a severe epidemic of scarlet fever followed one of small-pox in the vicinity of where Hahnemann resided, and from a study of the disease he found Belladonna would cure and would also prevent. In 1801 he published this fact to the world, Belladonna a preventive of scarlet fever. "It has been long known," says the *London Medical and Physical Journal*, in September, 1824 (the most respectable allopathic journal of that period), "that Hahnemann, of Leipsic, has asserted the above *fact;* since the year 1818 several practitioners in the north of Europe have repeated these experiments, and *they find them founded in truth.*" The first of these, Dr. Brandt, of Custein, affirms that *all who employed this remedy escaped the infection.* His account is corroborated by Dr. Musbeck, of Demmin, of Western Pomerania, who says he has used it for *seven years*, and with equal success. Dr. Dusterbourg, of Warbourg, also published an account of a series of experiments confirming these statements (*Sharp's Essays*, p. 97). Dr. Condie (p. 440) says: "The one (primitive plan) which has attracted most attention is that suggested upwards of thirty years ago by the celebrated founder of homœopathy. When given in small and repeated doses, it was long known that Belladonna would cause a heat and dryness of the throat, and an efflorescence upon the skin having a very close resemblance to that of scarlatina. Hahnemann hence maintained, in accordance with one of the fundamental principles of his system, that when administered so as to give rise to these symptoms, it would prove a certain preventive against the occurrence of the latter, and that such is

actually the case, we have the testimony of Hufeland, Berndt, Dusterbourg, Koreff, Thiebaud, Bayle, Zeuch, Kohler, Neglin, De Lens, A. T. Thomson, and Green."

The strongest evidence in favor of the prophylactic powers of Belladonna, is that of Dr. Stievenart, of Valenciennes. During the winter of 1840–1, several villages in the neighborhood of Valenciennes were visited by an epidemic of scarlatina *of a very fatal character*. In a small village of two hundred and fifty individuals, the Belladonna was administered by Dr. Stievenart to two hundred persons, *all* of whom escaped the disease; of the remaining fifty, fourteen were attacked and *four* died. In another village he placed the majority of the children at the public school under the influence of the Belladonna, allowing them to continue their lessons and to have free communication with other children of the place. No one of these were affected with the scarlet fever, while a few who refused to take it were attacked. He dissolved 2 grs. of fl. ext. in (oz.) 480 grs. of any aromatic infusion. Dose, 2 drops a day to a child æt. one year, for nine or ten days; an additional drop for each year up to twelve were given to other children.

In an epidemic of scarlet fever which occurred in South Carolina, Dr. Irwin made a very extensive treatment of the prophylactic properties of Belladonna. Of two hundred and fifty children who took Belladonna, less than half a dozen had the disease, and but very mildly. He gave 3 grs. of fl. ex. dissolved in an ounce of cinnamon-water, 2 to 12 drops a day, according to the age of the child. After eight or ten days' use, there appeared an eruption over most of the surface, in some cases profuse and troublesome from itching. Those families that did not take the Belladonna had the disease with scarce an exception. A poor woman with a family of sixteen children used it carefully according to directions, and it is notorious, we are told, that her family alone escaped when hundreds were attacked.

Dr. McKee, in the extension of the same epidemic, observed it to exert *the same* protective power (Condie, *Diseases of Children*, p. 442).

Bouchut says, in reference to the prophylactic powers of Belladonna, "This is one of the most curious facts of modern thera-

peutics; the knowledge of it is due to the *illustrious* Hahnemann, whose observations leave little room for skepticism. They are moreover confirmed by a host of physicians, amongst whom we may mention Schenk, Massius, Hufeland, Berndt, Neglin, Boyle, Godelle of Soissons, Stievenart of Valenciennes, etc., who have made use of this remedy in several epidemics, and who maintain they have thus limited the number of victims."

Boyle reports (*Bibliothèque de Therapeutique*) that out of 2027 individuals thus treated in an epidemic of scarlatina, only 79 were attacked and 1948 escaped; only about 3 per cent. In the face of this he merely remarks that there are many facts of this kind accepted as true in medical science.

His experiments, however, are valueless, so he pronounces against it.

SUMMING UP THE EVIDENCE.

Meigs and Pepper, in the recent edition of their work, cautiously admit that Belladonna has the reputed power of preventing scarlet fever, then very cautiously admit that they have used it some, and then state, "The impression we have received is decidedly favorable, so much so that we always make use of it now when the cases are severe, and especially when the type of the epidemic is *dangerous*."

MM. Rilliet and Barthez are of the opinion that it is worthy of trial.

M. Cazenave (p. 58) states that M. Biet saw the disease reign epidemically in one of the lofty valleys of Switzerland, and respect without exception children to whom the Belladonna had been administered.

Dr. F. Peyre Porcher, in an elaborate article to the *Charleston Med. Jour. and Rev.*, in 1851, to prepare which he consulted over four hundred volumes, says, "After by far the most thorough and careful examination of the interesting and important matter that we (Meigs and Pepper) have yet seen," his opinion is decidedly in favor of the prophylactic powers of Bell. The physicians' duty in the matter he puts thus: "The failure to avail ourselves of the prophylactic influence of Belladonna we cannot now but regard as a violation of those sacred obligations

which force us to leave nothing untried which may contribute so largely to the mitigation or eradication of one of the severest inflictions of the hand of God."

Prof. Stillé writes as follows (*Therapeutics*, vol. i, p. 788): "We feel bound to express the conviction that the virtues of Belladonna, as a protective against scarlet fever, are so *far proven* that it becomes the duty of practitioners to invoke its aid whenever the disease breaks out in a locality where there are persons liable to the contagion."

This testimony is all from allopathic sources, and is sufficient.

SUCCESS IN TREATMENT.

The success in preventing this disease is an honor that people will ever accord to homœopathy. Further, the success with which we treat this disease has stripped it of much of the terror with which it was formerly regarded. Was it not for the severe mortality in the hands of the non-homœopathic profession, scarlet fever would now be no more dreaded than measles or any other disease.

So great has been our success in preventing this disease, that there is danger from carelessness in not giving definite and emphatic directions for the management of children exposed to the disease.

The real comparative success is to be gleaned from those who have passed through epidemics while practicing both systems. It is to be regretted that so few of these have left their comparative success on record. This is due, perhaps, because few keep statistics and can show the figures, and because many think it too trifling a matter; but as a legacy to the future profession, this certainly should be done. We hope that at this meeting the veterans who have had experience on both sides will give us the results of their experience.

Dr. Wild, of England, affirms that patients have far greater chances of recovery under homœopathic than under allopathic treatment. Out of sixty cases treated by him, only three died.

Dr. Kyngdin, of England, who has practiced more than thirty years, says he lost but few cases, and during the last fifteen years he has lost *none*.

Dr. Bodman, of England, says: "Homœopathy generally brings the patient safely through without serious complications or sequelæ." This is the general verdict.

As far as can be ascertained the mortality in allopathic ranks, in England, is about 13 per cent. of the cases treated.

Grauvogl reports, under homœopathic treatment, one hundred and three cases, and only three deaths; less than 3 per cent.

In the Halifax Orphans' Asylum, in 1873, there were ninety-four cases of fever, with two deaths.

Hartmann says: "Ten years elapsed since I first commenced the practice of my profession, and during all this period I had treated many cases of scarlatina *without losing a patient.*" During a severe epidemic, shortly after that, he lost two cases, which corresponds so closely to the pathogenesis of *Arum tryph.* and *Apis*, that he no doubt would have been able to save them had these remedies been as well known twenty-five years ago as they are to-day.

COMPARATIVE SUCCESS.

The most reliable statistics we have are those compiled by Dr. Kellogg. In the cities of Philadelphia, in 1872, and Brooklyn, in 1872 and 1873, the results of the two schools are compared in the treatment of this disease, as follows:

The ratio is, homœopathy sixty-nine, allopathy one hundred, or nearly two to one; or, out of every hundred cases lost by our allopathic brethren, homœopathy might have saved thirty-one precious lives.

In eleven years' practice I have only lost two cases. The first was an infant at the breast, whose mother at the same time had severe diphtheria.

The other case occurred during our epidemic this spring, and had been badly managed before I saw it. They had given Acon. and Bell. tincture, following Ruddock's work, with acid drinks. It never recovered from the coma in which I found it. The angina was the most severe that I ever saw before. It was a very malignant case, and all in the house were affected by the poison. This was the only instance where Bell. did not prove a prophylactic in my hands. Another child had the scarlet fever

very severely, and in a few days, while convalescing, measles made their appearance.

In our ranks there is a feeling spreading and pursued, based on facts, that Bell. is not the prophylactic in all cases, and not the remedy in the early stage of the disease. Acon., and more recently Verat. viride, are supposed to take precedence of Bell. Now I deem this a grave pathological error. Remedies that produce anæsthesia of the peripheral nerves, as both Acon. and Verat. do, are not remedies for capillary congestion and peripheral hyperæsthesia, as we find in scarlatina. According to our law, Bell. produces hyperæsthesia and hyperæmia of the surface, and hence is the remedy. Acon. and Bell. are given in alternation, and so recommended in domestic works. Here are two remedies antagonistic in a pathological point of view, and should in no case be given thus, if we expect any effect.

In 1700, an epidemic of purpura miliaris made its appearance in Germany, and prevailed for eight years. This disease was mistaken for scarlet fever, which was not so well known as now, and for this disease Bell. did not prove a prophylactic. The reason for this Hahnemann pointed out, and suggested Acon. and Coffee as remedies for this disease. Miliary fever has not made its appearance again for about one hundred and sixty years. (Ziemssen's *Cyclopedia of Prac. Med.*, vol. ii, p. 489.)

Hahnemann's reference to this disease in his *Materia Medica*, introduction to Bell., has confused many physicians in reference to the prophylactic powers of Bell. in scarlatina proper.

Another error, it seems to me, is to look upon the miliary form of the disease as the more mild, and not therefore calling for Bell.; but a moment's reflection will show the fallacy of this reasoning. The miliary eruption is deeper, and must therefore be the more severe and more lasting of the two. Take the tongue as an index: first, we have a shining redness, then the lingual papillæ protrude, and we have the peculiar strawberry tongue of scarlet fever. The smooth redness of Sydenham is, then, a milder capillary injection than the miliary form so common to-day. Let the congestion of the surface continue, and the tongue assumes a dusky hue, and the skin a mahogany appear-

ance. The deeper the inflammation the more grave the case, is the rule.

There is another point in the prophylactic question I wish to notice, that may account for the failures recorded.

The allopaths put their stopping-point in the use of Bell. thus: "Administered *so as to give rise* to these symptoms (*i. e.*, sore throat and efflorescence)." (Condie, p. 441.)

Stievenart, in five or six cases, observed a rash similar to that of *measles* (miliary), and in a few other cases headache, with dilation of the pupils, dryness, and slight soreness of the throat.

In Condie's experiments he produced a worse disease than scarlet fever, and one case, a week afterwards, took the disease and died. Their mistake was in giving too strong doses, and in not continuing the effects long enough.

Another point we are too careless about. In all fevers it is very common for the people to give acid drinks, with or without the advice or consent of the physician. Now it should be borne in mind that acids antidote the effects of Acon., and aggravate those of *Bell.* If they aggravate the effects of Bell., it is but natural, yea, logical, to expect an aggravation of the scarlet fever. Acid drinks should, then, be scrupulously prohibited. Cold water is the beverage. Ozone gives us an acid condition of atmosphere; ozone aggravates this spring.

I am of the firm conviction that if Bell. was properly and extensively used, scarlet fever could be stamped out now and forever.

VIII.

THERAPEUTICS OF CHOLERA INFANTUM.

By Adolph Lippe, M.D., Philadelphia.

As a part of the report of the Bureau of Pædology to the twenty-seventh session of the American Institute of Homœopathy, will be found a paper with the above title, by Henry Noah Martin, M.D., of Philadelphia, which is, however, neither more nor less than an abusive "review" of Dr. H. N. Guernsey's work on Obstetrics, etc. Every author is liable to criticism, but the usual channel of criticism is through publication in journals or periodicals devoted to the subject or science of which the work criticized treats; but in the present instance an illogical and presumptuous critic hurls his anathemas at the devoted head of an author, from behind the bulwarks of a great society, and without an opportunity given to that author for reply or defence. The critic, therefore, should not claim the protection of the Institute when in turn he is assailed in a similar manner, and before the same learned body.

The introductory sentence of the critic is hard to comprehend. He says: "*If in these remarks on cholera infantum I shall differ with my colleagues as to its pathology, diagnosis, and prognosis, I hope I may be acquitted of any desire to appear singular, or to set up opinions different from theirs.*" What a singular appearance the learned critic makes. He differs with his colleagues, but he does not set up opinions different from theirs. And when he tells us, on page 19, "*I have had large experience in the treatment of children, and I confess to have seen but very few cases of cholera infantum. I call to mind at this moment one true case of*

this disease," it strikes us as presumptuous in a man who confesses to have seen but very few cases of cholera infantum, to write a paper on that subject, and present it to the American Institute of Homœopathy; and still more so, to first boast of having a large experience in the treatment of children, yet with an ability to call to mind at this time (after his large experience), but *one* true case of this disease, and still set himself up as an authority, pulling to pieces not only Guernsey but, and as a preliminary amusement, Raue, Baehr, Jahr, and Watson.

The animus of this review is very apparent. When the writer quotes from Guernsey's work (page 21) under Camphor: "The skin is as cold as marble, yet the child will not remain covered; much prostration and diarrhœa. Sometimes these spells only come on at night, and pass off in the morning," he says, "This is a true cholera infantum medicine, possessing very many characteristics of that disease . . . . the 'cold spells' which 'come on at night, and pass off in the morning,' are more characteristic of intermittent or congestive chills than of any type of cholera." When our critic is informed by Dr. Guernsey that a characteristic symptom of Camphor is that the child is as cold as marble, and will not be covered, and that these cold spells only come on at night and disappear in the morning, he can, by no reasonable possibility, draw the inference that Guernsey intended to say that these symptoms necessarily belonged to and were characteristic of cholera infantum; and when the critic authoritatively states that these "cold spells" which come on at night and pass off in the morning, "are more characteristic of intermittent or congestive chills than of any type of cholera," we are invited to look up to him as having had a large experience in the treatment of intermittent or congestive chills, as well as in the treatment of cholera. Having had a somewhat prolonged experience in the treatment of the sick, we can here state that just that sort of coldness (cold as marble) with resistance to even the slightest covering, coming on in the evening and passing off in the morning, has been *cured* by Camphor; once in a very complicated case of typhus cerebralis, and in this case Camphor 20^{m} not only removed this symptom, but cured the case altogether. It is not a characteristic symptom of any disease, as a disease *per se*, but of

Camphor, and the true homœopathician will, when such symptoms present, administer Camphor, no matter what the name of the disease may be.

The critic tells us, when dwelling on *Secale c.* (page 24): "The most marked characteristic of *Secale* is, the great desire to *be uncovered while the skin is icy cold.* WE," says the critic, "believe it to be more characteristic of Secale than of Camphor. *We*," he continues, "might more properly say, perhaps, that this symptom is characteristic of Secale in typhus and of Camphor in cholera infantum." Here again the critic presents himself as an expert, and in the treatment of typhus, too, as well as of cholera infantum, while a little further up in his criticism, notwithstanding his confession that he had seen but one case of cholera infantum, and that only while the little sufferer was on its flight to a better and less corrupted world. If the critic really had knowledge to impart, he would have enlightened his colleagues as to the characteristic differences of the symptom, external icy coldness of the body (like marble) with a great aversion to being covered, of these two remedies, since Camphor and Secale have them in common.

It so happens that we have seen, in the presence of other physicians (as in the case above mentioned), a case of typhus in which this coldness and aversion to being covered were present, cured by Secale cornutum. It is therefore evident that the name or character of the disease cannot decide the choice between Camphor and Secale corn.

Perhaps the learned critic will accept the information that besides the peculiarity of the *nightly* returns of this marble-like coldness, Camphor has "no thirst," and Secale cornutum "much thirst," while Camphor has exceptionably great thirst, and Secale has not even exceptionably no thirst.

The learned critic desires to assure his colleagues that as homœopathicians it behooves them to first diagnosticate the disease, and to that form of disease irrespective of the characteristic symptoms of the remedy, they are asked to apply their therapeutic means. It seems as if the learned critic was unable to draw reasonable deductions from the very facts he states in his paper. It appears by his own showing that the description of

the characteristic symptoms of cholera infantum as given by various authors differ very much, and if the critic had quoted more authors describing this form of disease, he would have found that they all differ in the description of the characteristic symptoms more or less. If it is so difficult to diagnosticate the disease, how much more uncertain and hazardous will it be to base the treatment on such a doubtful diagnosis.

At the end of this criticism we are informed by the gentleman (who *never*, according to his own confession, treated or cured a single case of the disease) what the distinctive features of the disease are, viz., *the very profuse watery ejections and dejections, the suppression of urine, rapid prostration and collapse.*

All or any of these symptoms may be present in cholera infantum or in the ordinary summer complaint, but they are not *distinctive features*, or, as we are in the habit of calling them, characteristic symptoms of cholera infantum. The name given this disease by Rokitansky, Marshall Hall, and others, "Hydrocephaloid," is quite acceptable. The characteristics must be discerned at an early stage of the disease or the case may prove fatal, and the difference is easily discerned. The hydrocephaloid, commonly called cholera infantum, has its origin in the "*brain;*" there is heat of the head, drowsiness, half-closed eyes, violent vomiting, long before diarrhœa sets in; blue, icy-cold hands and feet; much thirst. The experienced physician knows that the summer complaint has its origin in the disturbed digestive organs, and will even discern readily this ordinary disease from the similar softening of the stomach. The correct diagnosis of the disease is to us no guide in our therapeutics, as the learned critic erroneously believes. During a long practice we have seen this dreaded and grave disease time and again. There is no specific for it. We must find out in each individual case what are the characteristic symptoms of the patient, and if we know how to find the corresponding homœopathic remedy, the cases will not run a long, tedious course; and they will do so if we make a wrong choice of the remedy in our very first prescription. And what is that remedy, will the critic ask? Why any remedy which is really and truly homœopathic to the case. It may be, as we have found, at times *Belladonna*, when the vomiting pre-

dominated, when the perspiration stood on the head in large beads, and when the head was very hot and the child drowsy, with cold hands and feet; or *Apis*, when there was no perspiration of the head, but entire suppression of the urinary secretion, and loud screams; or *Sulphur*, especially when the first symptoms appeared in the early morning hours; or any other similar remedy. The totality of the symptoms constitute the disease, and the totality of the symptoms has to be prescribed for under the law of the similars if we desire success. It is all very well, not only desirable but absolutely necessary, that the healer should know, as nearly as it is possible to know, what the form of the disease and its full pathology are that he is called to treat; he will the more readily be able to discern the characteristic symptoms of the patient, and rationally attend to the much-overlooked general regimen the case requires; but the diagnosis does not, and never can, determine the remedy which is homœopathic, and therefore curative in a given case.

One more point in relation to our critic's paper. He quotes from Guernsey again:

"*Dulcamara.*—Every cool change in the weather, or an unusually cool night, causes a relapse; or such condition of the weather appears to cause the attack at its first onset." "And now," says the critic, "students and young practitioners should be warned against relying upon this medicine in cholera or cholera infantum." Here is a warning, to be sure, and the critic, following the warning with his reasons for giving it, continues: "A young physician, during an epidemic of Asiatic cholera, was called to such a case occurring in a night following a cool, damp change in the weather, and, relying on that fact as an indication, gave Dulcamara. Valuable time was thus lost, valuable life also, thus showing the danger from prescribing for one symptom a medicine which had no pathological relation to the disease." The critic here shows clearly and unmistakably what he does not know of homœopathy and of logic. The symptoms given under Dulcamara are well known, and have guided many physicians to the prescribing of Dulcamara for a variety of conditions, but especially for diarrhœa, with stools consisting of green or white mucus, with colic, particularly in the summer; or for watery

evacuations at night, when the weather suddenly becomes cool. If the young physician referred to did not prescribe for the totality of the symptoms, *he* was in error, not our Materia Medica. If he prescribed for one symptom alone, he proved himself utterly ignorant of homœopathy; and if, by the critic's advice, the young healer will next time, if he is ever again trusted with the treatment of a case of cholera, prescribe a medicine because of its pathological relation to the disease, he will still further deviate from homœopathic practice, and will perhaps lose another valuable life because of his own ignorance and folly, not because Dulcamara symptoms are erroneous, but on account of his, as well as the critic's, deplorable misconstruction of homœopathy. Students and young practitioners should be warned against many things; should be warned against the physiological livery; should be warned against false teachings; should be warned against relying on the pathological relation of a remedy to a case of sickness; they should be warned against false deductions; they should be warned against basing their treatment on the supposed existence of a disease with its lesions, which at best are frequently only conjectures; and they should be asked to become fully acquainted with the principles governing our school, and with the mode of applying these unerring, infallible principles for the cure of the sick.

It is to be hoped that the heads of bureaus of the American Institute will hereafter not permit the publication of such a miserable criticism of a valuable work in the shape of a contribution to a bureau. As we said before, criticisms of scientific works belong to our journals, the critic alone is responsible for his utterances. If improper motives prompt him to criticize while he should be glad to learn, his criticism becomes of no account, and will not elevate him in the opinion of men fully conversant with the subject.

SECTION XIII.

REPORT

OF THE

BUREAU OF GENERAL SANITARY SCIENCE, CLIMATOLOGY, AND HYGIENE,

BUSHROD W. JAMES, M.D.,	Philadelphia.
A. R. WRIGHT, M.D.,	Buffalo, N. Y.
THOMAS NICHOL, M.D.,	Montreal, Can.
LUCIUS D. MORSE, M.D.,	Memphis, Tenn.
W. H. LEONARD, M.D.,	Minneapolis, Minn.
D. H. BECKWITH, M.D.,	Cleveland, O.
F. H. ORME, M.D.,	Atlanta, Ga.
T. W. DONOVAN, M.D.,	New York.

TO THE

TWENTY-EIGHTH SESSION

OF THE

American Institute of Homœopathy.

VOLUME I. NUMBER 1.

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V. Climatology of the South Atlantic States, especially with reference to Life Insurance, ... F. H. ORME, M.D.

I.

GENERAL REPORT OF THE BUREAU.

By Bushrod W. James, M.D., Philadelphia.

To ascertain the climatology of the whole country was doubtless the object of the Institute in forming this Bureau. This is a task that cannot easily be accomplished by a few without aid from each and every city and State and Territory of the country; and to do this accurately and without local or sectional bias, it is deemed advisable that the Institute recommend to the various State and local homœopathic medical organizations, the formation of committees on climatology, and that these committees be urged to write up as speedily and as accurately as possible, the climatology of their section of country and State or special locality, and that a copy of such report or reports be sent to your committee on the same subject.

These same State or local committees could also be asked to make full observations upon the various epidemics that occur every year in their range of observation, and thus a summing up of all these reports annually by your own committee will furnish the meetings of the Institute with valuable statistics and other information from all parts of the country, and at the same time it will tend to promote greater unity of action between the State and local societies and this national body.

When all the various phases and advantages and disadvantages of climate all over this continent are obtained and collected together, and written out, and observations made as to their influence upon invalids as well as those in good health, we can then definitely determine for each and every class of invalids, just

where to seek the most benefit, so far as climatic influences go, and where the greater longevity to special classes of invalids and individuals with peculiar diatheses may be obtained.

Your Bureau of Climatology would also suggest that the Institute sanction its obtaining from each and every city and large town in the country where a member of the Institute resides, a correspondent to keep the committee advised of all epidemics, their ravages and progress, and treatment and remedies used in their cure, and also to note the variations of symptoms of any and all diseases under the local weather changes and electric conditions of the locality, or in other words, to keep a local "weather proving."

It would further suggest that this Institute pass some such resolutions as the following:

WHEREAS, It is now a difficult matter to obtain mortuary reports from many of our cities and towns; therefore

Resolved, That this body would recommend to the members of the Institute that they in their respective cities and towns where published reports are to be had, obtain and furnish annually to this bureau a copy of such published reports; and further, that where State reports are made up, that State statistical mortuary reports be likewise sent to this bureau.

Resolved, That in States, cities, and towns, where these reports are not made out and published, they be urged to publish them for the general good of the country, as well as for local advantages.

II.

THE CONSTRUCTION OF HOSPITALS.

By D. H. Beckwith, M. D., Cleveland, O.

In the year 1869, Sir James Y. Simpson published statistics carefully gathered from nearly all the public and private hospitals in Europe. From these statistics the fact is gathered that the mortality in large hospitals is much greater than in the smaller institutions, and even greater than in private practice. The treatment of surgical diseases, and the after treatment following major operations, were so unsuccessful that Sir James advocated in the strongest terms the tearing down of all the large hospitals in Europe, and the erection of smaller ones in their stead.

In the same year, several French physicians came to the conclusion that patients in the surgical wards of the larger hospitals presented a much larger death ratio than occurred in private practice.

In the year 1871, so great was the mortality in the surgical ward of the Edinburgh Hospital, that Professor Lister adopted a new method of treating wounds, to which was given the title of *antiseptic* treatment by this eminent surgeon; which method, he claims, has done away with the frightful mortality which formerly occurred in the old hospitals, overcrowded as they were, and conducted under the most unfavorable and unwholesome hygienic conditions. During my visit to this hospital, in 1873, I observed that all surgical operations and dressings were performed under the carbolic acid spray. Professor Lister had practiced this method for eighteen months at that time, and no

case of *pyœmia* had occurred, although he had performed upwards of fifty major amputations. Notwithstanding all this, however, Lister's method is not generally adopted in the large hospitals, and does not receive the approbation of the profession in very many cities.

All surgeons are of one mind in regarding the decomposition of discharges from wounds as a very great and grave evil, and attended with very serious consequences, which frequently present themselves in the form of septicæmia and pyæmia, and endanger life in cases which might, but for their occurrence, go on to a good and speedy recovery. In all surgical wards a case will occasionally be found of such a nature that to prevent decomposition is impossible. Poisonous emanations proceeding from a case of this kind impregnate the walls, ceiling, and perhaps every portion of the ward wherein the patient is contained. Wounds of this character should be undressed and redressed under the carbolic acid spray.

The *pavilion* plan for a hospital presents many advantages in a *sanitary* consideration over every other. The finest hospital in the world is built on this plan, and has been constructed regardless of expense. I refer to St. Thomas's Hospital, in London, which covers eight and a half acres of ground. The hospital buildings, seven in number, cost $400,000, the cost of each bed being £650, or $3172, while the land upon which the hospital is erected cost £90,000.

The design here presented represents a hospital, which can be built for a moderate sum of money, and yet so constructed as to combine and comprise all the improvements pertaining to the modern expensive hospitals.

In selecting a site for a hospital, one of the healthiest locations should be sought for; the land not too much elevated, so as to avoid all the poisonous emanations that may sometimes occur in or about a city; neither should the land be low, thus avoiding dampness. Moreover, it should be so situated that plenty of sunlight may penetrate all the wards. I would give preference to a building spot on the bank of a river (if it be not a sluggish one), or on the bank of a lake. In this situation the hospital would be comparatively free from the annoyance of

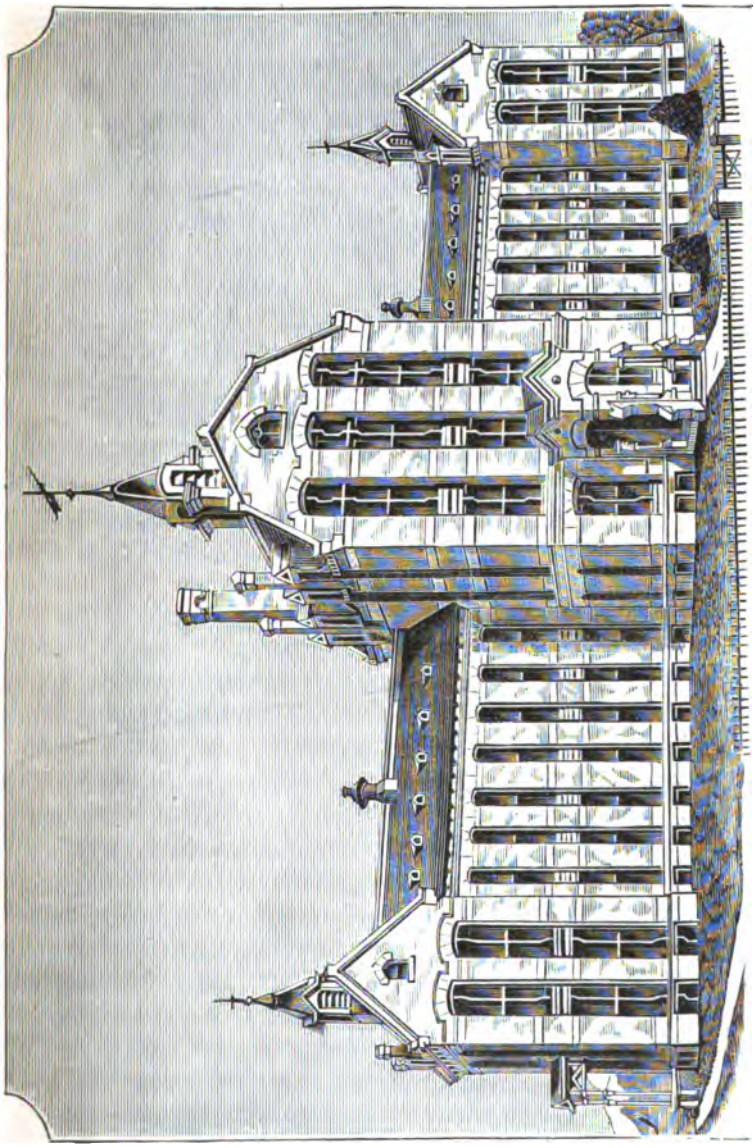


FIG. 1.

noise, smoke, and dust, and the action of the water upon the atmosphere would create a natural ventilator, so to speak; and in addition to these advantages there would be a quieting and soothing influence derived from the water, which could not fail of being beneficial to a sick person.

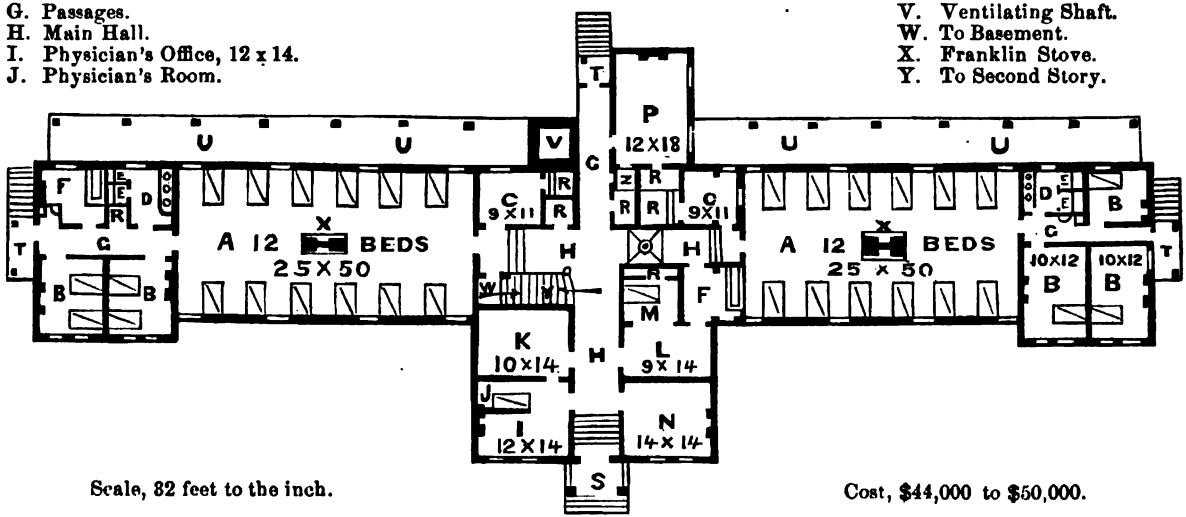
The plan I here exhibit (see page 10) would require a lot of ground of about two hundred feet frontage, with a depth varying from two hundred to four hundred feet frontage, with access both by front and rear. A lot of much larger dimensions than these would of course be preferable. The hospital erected according to the plan presented would accommodate seventy patients, while pavilion buildings could be added from time to time to meet requirements as they arise. The grounds should be ornamented with trees, shrubbery, and flowers; and gravel walks should be tastefully laid out; thus affording convalescents an opportunity of enjoying walks in the open air amid pleasant surroundings. The importance of ministering to the minds of the sick, as well as to their physical ills, cannot be overestimated.

To prevent poisonous emanations from being taken up and retained by the woodwork of the various wards, the floor should be covered with *paraffin*. This substance can be applied by pouring it on while in a melted state, and ironing with heated rollers, or by using an iron box kept hot by burning charcoal. It can be made to penetrate the floor from one-eighth to one-fourth of an inch. When the paraffin becomes cool, it may be scraped, and the floors brushed with heavy brushes, and a smooth polished surface thus obtained.

The floors are not made sticky by this application, as you might imagine, nor slippery enough to be unsafe; but they are rendered non-absorbent, are unaffected by acids, alkalies, or alcoholic preparations, and will clean easily by the use of a moist cloth. The paraffin will last many years without renewing, and is inexpensive (costing from eighteen to twenty cents per pound). Hot water should not be applied to the floors thus prepared. The balance of the woodwork, such as the sash, blinds, doors, and even the furniture, should have three or four coats of the paraffin

FIG. 2.

A. Large Wards, 25 x 50.
B. Small Wards.
C. Nurses' Rooms, 9 x 11.
D. Lavatories.
E. Water-closets.
F. Bath-rooms.
G. Passages.
H. Main Hall.
I. Physician's Office, 12 x 14.
J. Physician's Room.
K. Pharmacy, 10 x 14.
L. Matron's Room, 9 x 14.
M. Matron's Bed-room.
N. Reception-room.
Z. Dumb Waiter.
O. Elevator.
P. Dining-room.
R. Closets.
S. Front Porch.
T. Side Porches.
U. Piazza.
V. Ventilating Shaft.
W. To Basement.
X. Franklin Stove.
Y. To Second Story.



Scale, 32 feet to the inch.

Cost, $44,000 to $50,000.

PLAN OF FIRST STORY.

applied to them, which can readily be done by means of a mixture of two and a half parts of benzole to one of paraffin.

The walls should have a clean, hard, smooth finish, and be painted in the same manner as recommended for the woodwork in the wards.

All chamber utensils should be covered closely, and removed as soon as possible from the ward, unless retained for clinical investigation by order of the physician or surgeon.

Nurses should wear clothing which can easily be washed, or if woollen be worn, cotton or linen garments should be worn over them. They should attend to the cleanliness of the wards and the patients in them. The hospital surgeon, as well as his assistants, should wear an over-garment of such material as can be washed frequently.

If we adopt non-absorbent walls, floors, and other woodwork, have a thorough system of ventilation, but few *patients* in one ward, cleanly nurses, and when cases demand it use antiseptical surgery, or in other words, combine all the sanitary precautions to prevent disease, we will have a hospital which will last many years, and one in which the medical and surgical treatment will be as successful as that of private practice.

I have drawings here of four different hospitals, varying in cost from twenty-five thousand to one hundred thousand dollars. But the cut before referred to represents the one which, in my estimation, is best adapted to meet the requirements of a good modern hospital. As before remarked it is adapted for seventy patients, has all the modern improvements, can be built on a lot two hundred feet square, and has the advantage of a facility for the addition of pavilion annexes at any time such may be needed; the "administration building" being sufficiently capacious to supply the wants of any "pavilions" that may be added to the original structure.

The "administration building" is the main building, forty by fifty feet in size, three stories high above the basement, with a porch in front eight feet by twelve. The basement should be ten feet in height, and contain the kitchen, laundry, dining-room for servants, pantry, closets, cupboards, store-room, and a heater for heating and drying clothing.

The general entrance to the main building is in front, entering first the vestibule, and reaching the hall by a flight of steps; the hall being eight feet wide. At the right of the hall is the reception-room, fourteen feet square, the matron's room, nine by fourteen feet, with an alcove for the matron's bed, a closet, and a bath-room, eight by ten and a half feet. On the left is the physician's room, twelve by fourteen feet, a small bed-room, the pharmacy, ten by fourteen feet, and adjoining the pharmacy a flight of stairs, five feet wide, passing to the basement and the second story. Descending three steps we enter the main ward. Back of the hall is the nurse's rooms, with windows looking into the principal wards. Here also is a dumb waiter to carry food and other articles to the different stories of the building.

In the rear of the "administration building" is a small wing, two stories high, the first floor of which is to be used as the general dining-room, and the second floor for servants' rooms.

The second floor of the "administration building," sixteen feet high, is designed for bed-rooms and private wards, and is supplied with bath-rooms, water-closets, and hot and cold water.

The third floor, from eighteen to twenty feet in height, contains the amphitheatre, ante-room, operating-room, and two small wards where patients are temporarily placed after an operation. These rooms are not required to be large, but they should all be well ventilated. In the rear hall a *lift* can pass through a trap-door to the second and third floors, and thus patients may be conveyed to the surgical ward.

On either side of the "administration building" are wings, two stories in height, for general wards. They are designed to be twenty-five feet wide, fifty feet in length, sixteen feet in height, and to accommodate twelve beds each, giving a cubic capacity of one thousand six hundred and sixty-six feet to each patient.

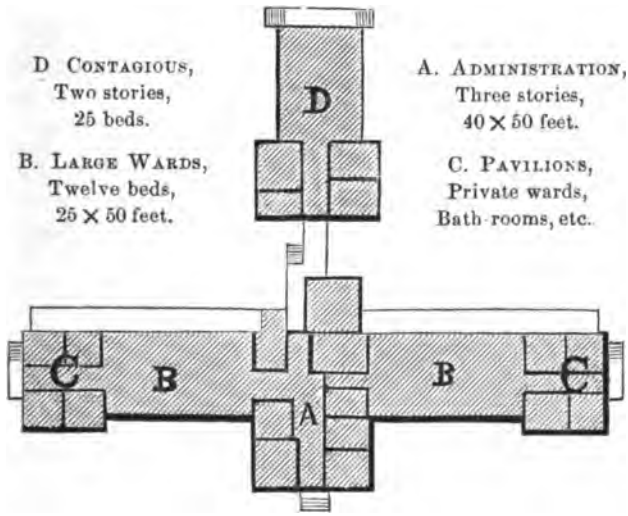
The beds may be placed against the walls, as the cut represents, or removed from the walls so that the nurse can pass around the heads of the beds. The beds are eight and a half feet apart from centre to centre. The windows are so arranged that patients can see out of them.

Piazzas extend the entire length of each ward on the first and

second floors, are each eighty feet wide, and will make a pleasant resort for convalescents.

At either end of the wards are pavilions, twenty-two by thirty feet, containing private wards, bath-rooms, water-closets, and small cook-rooms, where nurses can provide tea, coffee, gruel, or other necessaries, at any time, for patients in the main wards or pavilions.

FIG. 3.



BLOCK PLAN, 64 feet 1 inch.

THE INFECTIOUS WARD.

In the rear of the main building a ward may be built for the reception and treatment of patients suffering from contagious or infectious diseases. The general plan of this addition may be seen by a view of the cut on this page, which exhibits the block plan of the entire building. The plan exhibited provides a separate building with room for four wards, which may be regarded as ample for all purposes. The main ward, twenty-two by forty feet, will accommodate twenty patients. The stories should be eighteen feet in height, allowing each patient a cubic capacity of two thousand feet. The fresh air should pass

over a box containing carbolic acid, or some other disinfectant, in case a malignant epidemic prevailed.

In order to secure the hospital in case of fire, I would recommend easily accessible hose and the "Babcock Fire Extinguisher."

COST OF THE HOSPITAL.

The cost of such a hospital as the one just described, to accommodate seventy patients, built of the best material, but in a plain, substantial manner, would be as follows:

Foundation,	$1,200 00
Brick (116,600, at $11 per M.),	12,826 00
Plastering,	2,800 00
Timber and Joists,	1,200 00
Carpenters' and Joiners' work,	10,000 00
Sewerage,	500 00
Painting, preparing Floors, Slate and Roofing,	6,500 00
Plumbing,	1,000 00
Laundry and Kitchenry Machinery,	1,300 00
Heating Apparatus,	4,500 00
Ventilating Apparatus,	500 00
Bedsteads and Bedding,	674 00
	$43,000 00
The cost of building the Contagious Ward would be $14,000 (Wood, $10,000),	14,000 00
Total,	$57,000 00

Amounting to $610 per bed; or omitting the Contagious Ward, $600 per bed.

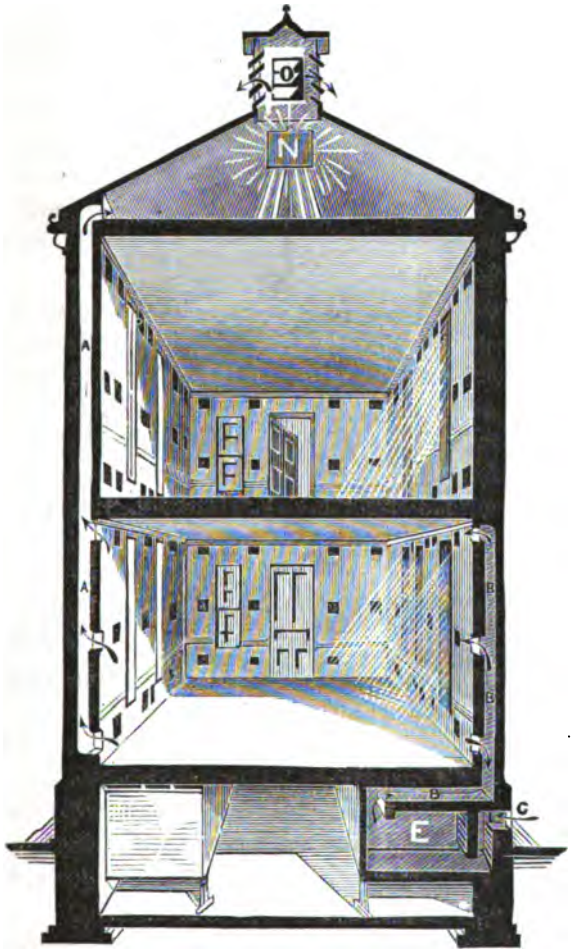
I have thus presented you the plan of a building containing all the modern improvements, warmed with the most approved heating apparatus, and so arranged that patients can have pure air and every other comfort that a hospital should afford. By way of comparison, I again allude to St. Thomas Hospital, London, where each bed cost $3172; *exceeding the cost* of this plan $2500 per bed.

I am indebted to Mr. F. A. Coburn, of Cleveland, O., for the drawings and estimates here presented, and to Mr. Frank Stone, of Cleveland, O., for the specimens of paraffin I have exhibited to you.

VENTILATION.

Within a few years the subject of ventilation has attracted much attention, and architects have endeavored to ventilate public buildings in the most approved manner. The plan exhibited by the cut below illustrates the most practical means by which a hospital can be ventilated and warmed.

FIG. 4.



A. FOUL-AIR DUCTS. E. HEATING CHAMBERS.
B. FRESH-AIR DUCTS. N. HEATER IN ATTIC.
O. VENTILATOR.

It must be understood that this cut represents but one of each kind of the many ducts with which the walls are filled.

It is essential that a ward, large or small, should be supplied with fresh air and relieved of the foul air equal to the requirements of each patient, and the air must be changed in such a manner that exposure to drafts will be entirely avoided, and at the same time accomplished without reducing the certainty of warming an apartment up to a required temperature.

It is evident that if by any means air can be drawn out of a room, other air must flow in to fill the vacuum thus formed (provided there are openings for the inlet of the fresh supply); and this may be accomplished by means of a *heated shaft*, by the use of which air can be drawn out of an apartment with the greatest facility. The arrangements, therefore, should be such that while foul air is withdrawn, fresh air should be supplied and warmed to the desired temperature.

How and when to get rid of the Foul Air.—Connect by means of ducts with a heated shaft, or chamber of sufficient capacity, and remove to the nearest point where the air is polluted.

How and where to warm and admit the Air.—Provide a sufficient number of openings, and admit the air where it will not come into contact with the patients. Warm, by passing the air over or through coils of steam pipes, before it enters the room.

For the *ventilation* of wards and other parts of the building, there should be ducts in the walls, one to each bed, if possible, opening into the room at various heights. These flues should be of sufficient size to take out of the room sixty cubic feet of air per minute for each patient, and so numerous that part of them may be closed without reducing the amount of air withdrawn below the required amount.

These ducts are marked A on the drawing, which represents a vertical, transverse section cut across one of the large wards. Those ascending from the second floor are not shown, being behind those from the first story.

At H, H, H are shown the registers at different heights. Should the flow of air toward the lower register disturb the patient, that

one may be closed, and one higher opened. In the summer months the upper register will be found especially useful.

These foul-air ducts open into the attic, at the top of which is a ventilator, O, heated by the coil of steam pipes or stove, N. The foul-air in the attic, being rarefied by the heater, ascends through the ventilator, causing a vacuum in the attic, which will be filled by the air entering through the various foul-air ducts.

On the other side of the building, marked B, are the fresh-air flues, which are also in the side walls, and opening at different heights, corresponding with the foul-air ducts. Both fresh and foul-air flues should be of equal size and capacity. The fresh air will enter the building at the aperture C, pass through the passage D to and through the coil of heating pipes E, and through the duct B to the ward.

After what has been said concerning the different heights of the foul-air registers, it will be apparent that each duct should have its own separate chamber. Were all to open out of a common chamber, they would rob each other, the larger ones taking most of the air.

The position of the steam pipes and warm-air flues at the ceiling of the basement, will be conducive to a comfortable temperature of the first-story floor.

In the rear of the "administration building" is a brick shaft, inside of which is an iron shaft for the passage of the smoke from the heating apparatus. The heating of the iron stack will cause the air around it to rise. Connected with the shaft will be ducts leading from the waste-pipes of the water-closets, sinks, etc., thus causing the air to pass down these pipes. Trapping the main sewer will effectually prevent the air passing up the shaft.

Some arrangement should be made for heating the stack during the summer season, when the heating apparatus will not be in operation. This can be accomplished by a connection with the smoke pipe from the kitchen, or by a grate for that purpose at the bottom of the stack.

To facilitate ventilation during the warm months, a stove can be placed in the ventilator, although the action of the sun on the slate roof will do much in this respect.

The Franklin stove or ventilating fireplace in the centre of the large wards, as well as the grates in the smaller wards, will aid materially in the ventilation. The stacks of the stoves or fireplaces may be surrounded by larger ones, and the space between the two being heated by the inner ones, the impure air will be drawn off.

The windows should be separated into three sashes, thus allowing two-thirds for ventilation if required.

A hospital building constructed with wooden floors, slate roof, of the best material, and in a workmanlike manner, presenting the imposing appearance of the building represented by the cut on page 7, would represent an outlay of $52,000, or omitting the contagious ward, $38,000. Were money enough at our disposal to enable us to erect a hospital upon a fireproof plan, it would alter the details of the exterior. The projecting roof with its wooden supports would be replaced by a compact stone cornice and metal gutter, and the light wooden porch would give way to something more substantial.

It should be the aim of the architect to construct the building, so as to show by its exterior, as well as interior, the purpose for which it is used. It should not resemble a church, college, or manufactory, but unmistakably a hospital. The entrance for visitors and patients should be distinctly indicated. The window ventilators and other arrangements should be carefully seen to, as they give character to a hospital as well as materially increasing its sanitary fitness.

The public of this country are still in ignorance of the fact that art is found in every-day matters, and that it is not something belonging exclusively to the learned and wealthy, but is subject to the simplest rules, and capable of being utilized in the most economical works.

III.

NOTES ON THE CLIMATOLOGY OF CONSUMPTION AND SOME MALARIAL DISEASES.

By A. R. Wright, M.D, Buffalo, N. Y.

In the following selection of notes, choice has been made of only those that relate to climatic or *unavoidable* causes of disease. The *avoidable* causes are just now receiving considerable attention from scientists and sanitary boards. The *un*avoidable causes *must* act according to laws of climatic cause and effect, more or less *fixed*. These notes are made to approximate a knowledge of such laws. They are written in the interests of those who wish to know the healthy and unhealthy localities, and the probabilities of the appearance of disease at any given time or place.

The work of grouping climatological conditions in association with the generic forms of disease has scarcely been begun for the United States. To accomplish it we need vital statistics of all the cities and towns in the country, so that statistics of disease and mortality may be compared with climatological statistics in the fullest manner. At present only a few of the larger towns publish any annual mortuary report.

There has been much speculation on the unsettled question as to what causes the deterioration of healthy human stock emigrating from Europe to this country. Comparative statistics of the meteorological conditions of the two countries can give the only true answer. An official report touching on climate and phenomena peculiar to the great lakes of North America, says, "The meteorological influence should be described in its most extended sense, as comprehending, according to Humboldt, all the changes of the atmosphere which seriously affect our organs,

. . . . with reference to its influence on the feelings and mental condition of men (2). The earlier climatic observers were very crude in their remarks, as for instance, Galen in his commentary on the epidemics of Hippocrates, says, '*Moist* weather is apt to affect the bowels, producing belly fluxes, and *dry* weather, the *renal* organs' (1). Again, in accounting for the appearance of this sweating sickness in England in 1485 it is said the years from 1480 to 1485 were *wet* years. 'This dreadful disease was swept away January 1st, 1486, by a southeast wind.'

"The influenza of 1510 had for its precursor, a 'long moist air, with ill-smelling fogs at the time.' The epidemical catarrh of 1580 was preceded by two or three years of a 'moist, rainy, southerly constitution;' that of 1675 came 'after a pungent fog.' In 1729 influenza appeared after 'a rainy November with high tides;' in 1732–33, 'during a damp, chilly spring, southerly and fetid fog;' in November, 1737, 'a southerly wind indeed damped the month'" (1).

From these we turn to observations made nearer our own time, and first on

Dysentery.—For its *geography* we have "in all parts of the world which lie less than 35° to 40° north or south from the equator, we find broad stretches of country where dysentery is endemic or epidemic. In the same parts of India where intermittent and cholera rage, severe endemic dysentery is also common. Many regions of Asia, the Indian Archipelago, nearly all the explored coasts of Africa, the West Indies, and a larger part of South America, are dysentery countries" (3). On the *cause* of dysentery, Annesley says, "when it occurs as an endemic, or in an epidemic form, it results as unequivocally from malaria as any of the types of fever which have been enumerated," . . . "its prevalence chiefly or entirely in situations where and during seasons when malaria or vegeto-animal miasms abound, proves its miasmatic origin" (4). "Huebner and others think that a long-continued high temperature, with perhaps cool nights, is a prominent cause of dysentery, and like other miasmatic diseases, an epidemic of it requires 'a certain climate, a certain temperature, a certain season, and finally a favorable situation.' Everywhere in the tropics, there has been such a close connection between

dysentery and malignant intermittent and remittent fevers, that the fevers indeed, in certain regions, may make their appearance in the form of dysentery (3).

"Many observers for a long time have thought the miasma of dysentery to be like that of malaria, so that Huebner says we may adopt as the cause of epidemic and endemic dysentery, a miasm which is developed under the influence of a tropical climate, or of one resembling a tropical climate, ... under conditions which exist in some parts of the tropics *every* year, in the temperate zones only from time to time" (3).

As to the season of its appearance in the temperate zone, it generally occurs in the latter part of the summer and fall. Of 546 epidemics which Hirsch collected, 517 occurred in summer and fall, 13 in winter, and 16 in spring (3). Degner and Niemeyer are the only prominent epidemiographists who form the theory of the contagiousness of dysentery, while nearly all others, as Mursinna, Zimmerman, Rollo, Annesley, Hauff, etc., do not believe it contagious, except by large quantities of the excreta, when the epidemic prevails to a great extent.

Yellow Fever.—On the etiology of this singular disease, there has been much speculation without any definite and reliable results, most writers on it honestly confessing that its real cause is unknown; and yet more definite conditions of atmosphere seem to be required for its propagation than for any other malarial disease.

On its *geography*, Hæmisch says, "The Antilles were probably the cradle of yellow fever. . . . . It prevails, mainly, as an endemic in all the West India Islands, in Venezuela, New Grenada, and New Mexico, as far north as Charleston on the east coast of the United States, and in the northern portion of the west coast of Africa" (5). "To the same extent as yellow fever can be called a disease of seaports, can it be called a disease of level districts" (5). Johnson defines a yellow fever region in Europe which embraces the Spanish peninsula and the Mediterranean coast eastward to embrace a part of Italy (7). "It is properly an American form of malarial disease, with its home in American tropical regions; and it is somewhat singular that it is unknown in the East Indies and China. . . . . It is some-

what remarkable that none of the epidemics have gone farther north on the Mississippi than Memphis. The yellow fever zone is often identified with the sugar zone or the limit of successful cultivation of the sugar cane" (6).

Atmosphere.—In its effects on the disease, all writers agree that for its initiation and prevalence as an epidemic, the mean temperature of the atmosphere for the season must be very high, most claiming 80° (8), (10), others 77° (5), (6). Dr. Barton shows the "direct relation of this highest form of climatological disease to *heat, humidity,* and the local *malaria* generated by organic decomposition. If either of these causes be wanting there can be no severe epidemic." Of the severe epidemic of 1853, he says, on the 9th of *June* constant rains set in and fell almost daily through the rest of the month, the average humidity being 815; in July it rained on eighteen days and four nights; in August there was but one day marked entirely clear, the rainfall for the month being seven inches, the atmosphere for this time being stagnant, close, and suffocating, and the average temperature above 80° (11). Yellow fever disappears with the frost, though it has been known to cease before the frost came. Barlow has calculated the average length of yellow fever epidemics in this country at 58.33 days.

The *season* for yellow fever epidemics includes generally only the months of July, August, and September, rarely a part of October (5), (8).

On *local causes* of the disease, we have for New Orleans, low stage of water in the river, and the damp chilling winds from the neighboring miasmatic swamps (2).

It is very rare out of towns, and seems to belong to social aggregations almost alone. Most writers agree that it is not contagious by direct contact, but that it may be transported over long distances, while the immediate neighborhood has perfect immunity from it; that the direct cause of the disease is an unknown living miasm, which only develops the disease when the external conditions are favorable; that this miasm is not reproduced or multiplied in the diseased organism, nor does it migrate from a diseased organism to other men. (5), (12).

Malarial Diseases I refer to collectively, on the hypothesis of a common origin with a different development for each.

On their *geography* we have only space for the prominent localities. In India, there are the river districts of the Indus and Ganges, and shores of the Brahmaputra, islands of Ceylon and Sumatra; in China, along the southern and southwestern coast, and on the banks of the larger streams; in Africa, on most of the coasts and the banks of large rivers; in Spain and Portugal, along the southwest coast and in the bottom land of rivers; in France, principally in western and southern portions of the country; in England *rarely*, except on the eastern coast and in some of the lowlands of the Thames. Scotland and Ireland are free from malaria. It prevails in portions of Holland, the North German flatlands, and a large portion of Hungary; in most of the West India islands, and both coasts of Mexico (13). In the United States, all the low country of the South Atlantic States has the localities particularly favorable to the development of distinctive miasma in abundance, particularly as its rivers spread very much in lagoons and shoals, and rarely enter the sea by deep-water channels. The basins and bottoms bordering the Mississippi, reaching even above St. Louis, are fruitful sources of miasm, and are considered pre-eminent as the theatre of malarious fevers. From the Mississippi westward the change is abrupt (6). In all the Mississippi Valley some admit no other division than that of *degree* in regard to all the various forms of autumnal fever (14). "In the United States, malarial diseases follow the rain shadings very closely both as epidemic and as endemic" (6). "The summer isothermal line of 65° is nearly at the northern limit of diseases of malarious origin . . . . to the 97th meridian" (6).

Dr. Drake concludes that intermittent fever from climatological causes ceases at 47° 30′ N. (14).

On *Atmospheric* effects, the temperature is an item that has received great attention, but "at what temperature the extrication of the noxious effluvia commences it is difficult to determine, ... it *may* be a few degrees above the freezing-point" (4). "It is almost never developed at a lower temperature than 60° F." (12). It becomes evident from observation that it is

the average summer temperature that is of account in malarial fevers; and that the form, type, and intensity of the fever are usually in pretty direct relation to the temperature of the atmosphere. Johnson says that a mean temperature of 60° for the summer is necessary for its production, and that it will not become epidemic at less than 65° of mean temperature. Humidity is an essential element of malarious diseases, and in its absence they disappear for all districts when the temperature is high enough to develop malaria (6). "A high degree of atmospheric moisture in a malarious district, according to Becchi, produces symptons leading to attacks of fever in more susceptible individuals. Jilek gives a table for six seasons of malarious fever in Pola, a malarious district of Istria, which shows the number of fever cases to be almost in exact proportion to the amount of rainfall for the seasons. In the tropics, fevers are found to be more extensive and more severe, the more damp the year has been. . . . . Even in Germany malaria is evidently fostered by a wet spring and summer followed by a hot autumn (13), and in the southern provinces of Europe, malarious diseases have been still more prevalent, whenever a long and warm season succeeded to heavy rains (4). Annesley considers the moisture of the atmosphere in the malarious districts of India a prominent cause of these fevers" (4).

Of *Soils*, Annesley says, "rivers are among the most productive sources of malaria both along their course and at their termination into the ocean, the low grounds near them being rendered particularly insalubrious by the deep, rich, and moist soil which form them." Especially is this true of the delta of rivers and the islands near them, as of the Ganges, the Irrawaddy, the Indus, the Orinoco, the Danube, and the Mississippi.

"Of all the places productive of disease in warm countries, none are more deserving of notice than rice grounds" (4). From personal observation among the rice fields of China, especially those of the province of Shanghae, I can verify this assertion. "Marshes that are formed partly of salt water, are far more noxious than those supplied entirely with fresh water" (13). Lands with a clayey or alluvial soil, and even elevated lands with a stratum of loose soil on the surface, and a deep floor of

clay or some other impermeable soil, may produce the same results as swamps (13). Prof. Salisbury, of Cleveland, brought out a fine theory of the cause of intermittents in emanations from a species of algoid plants called Palmella, the palmelloid cells being always found in the salivary and urinary secretions of ague patients (12), but Harkness, in the *Boston Med. and Surg. Journal*, declares, from his observation in the highest Alps, that these palmelloid spores have nothing at all to do with malaria.

The *Season* for the appearance of malarial fevers is generally during the hot and dry seasons following the season of heavy rains. In Senegambia and on the Guinea coast the fever season is June, September, and October; in Central America from November to May; in the West Indies, during the entire summer and fall; in subtropical regions, from the end of June to the beginning of August; in cold climates as Germany, Great Britain, and northern portions of the United States, just after the spring thaws, with often another outbreak in the fall after the harvest (13). I wish here to make an interesting citation on typhoid fever, a disease which is now generally considered of miasmatic origin, perhaps requiring a specific poison for its development. As to the time of its prevalence, it appears, from carefully prepared tables on typhoid in the city of Berlin, for nine seasons, of Basle for twenty-four seasons, and of London for fourteen seasons, including in all 18,000 cases, that the maximum of the disease was in September and October, or about two months later than the maximum of temperature. The only remarkable exception to this apparent rule found in any or all observations, was in the city of Munich, where, for sixteen seasons, the maximum of the disease was six months later than the maximum of temperature. The Munich observers account for this on the hypothesis that in Munich the breeding-places of the typhoid poison lie deeper in the earth, and hence a longer time is required for elimination.

An interesting fact is shown in the phenomena of this disease at Munich, viz., that the number of fatal cases at any given time of any season, rose and fell inversely to the rise and fall of the *water springs* in the *deep water-shed* (15).

On *Local Causes* of malarial fever Blodget says, the local miasmatic fevers of the United States are primarily climatological, but immediately due to the most poisonous form of malaria or miasma from swamps and marshes, and have a common identity with the malarial fevers of Italy, as shown by the rice fields of the South, the Isthmus of Panama, etc., where the *degree* of exposure alone decides the violence or the *form* of fever (6).

Annesley contends that forests in the tropics, especially after the rainy monsoon, generate the malaria, but do not allow it to escape beyond their verdure, while the low jungle, more like a marsh, permits its escape and transportation to a great distance (4). Some noted instances of the protection from malaria afforded by screens of growing trees are mentioned by La Roche. "Lancise states that a thick forest formerly extended on the south side of Rome, protecting it from the effluvia of the Pontine marshes; this belt has since been removed, and the country has become proverbial for its unhealthiness. . . . Trees were planted by the Romans to protect localities in this manner, and the practice was enforced by law. Beyrout, formerly very unhealthy, has ceased to be so since the Fakir-el-din planted a wood of fir trees which still exist a league below the town" (9). Many other similar cases are noted by the same author. Of the deadly character of some localities, Admiral Smyth cites an instance in which the French, by encamping near Baiac, an unhealthy spot near Naples, had their army suddenly reduced from 28,500 to 4100 men. . . . . The English lost 10,000 men in 1809, in the expedition to Walcheren. He cites other instances and insists that these cases are *not plagues*, as supposed, but that they are purely of malarious origin, and may be avoided by avoiding the localities where they originate (17). It remains yet to be shown, as no doubt it may be by careful investigation, why malarial fevers occasionally appear at such great altitudes as on the Tuscan Apennines at 1100 feet, on the Pyrenees at 5000 feet, on the island of Ceylon at 6500 feet, and in Peru at 10,000 feet (13).

Consumption.—While this disease is not of the Arctic or tropical regions, neither can it be put down generally for the temperate zone. Blodget says: "Consumption is rare in the

Arctic regions, in Siberia, Iceland, the Orkneys, Shetlands, and Hebrides." "Geographically, for the United States, the diseases of the respiratory organs of which consumption is the chief, have their maximum in New England in the latitude of Boston, and diminish in all directions from this point. . . . . The diminution is quite as rapid westward as southward, and a large district near the 40th parallel is quite uniform at twelve to fifteen per cent. of deaths from consumption, while Massachusetts varies from twenty to twenty-five. At the border of the dry climate of the plains, a minimum is attained as low as that occurring in Florida, and one not exceeding five per cent. of the entire mortality. It is still lower in Texas, and the absolute minimum for the continent in temperate latitudes is in Southern California" (6). "The immense prairie region of the Northwestern States, embracing the Lake Superior region, Northern Wisconsin, Minnesota, Dakota and Montana, are all alike exempt in a remarkable degree from consumption." Surgeon Wood, of the United States Army, says, "The climate of these broad and elevated table lands which skirt the base of the Rocky Mountains on the east, is especially beneficent to persons suffering from pulmonary diseases." The towns of New Mexico (or still further north) should be selected as a refuge for those showing a tendency to disease of the lungs, anywhere east of the Rocky Mountains and west of the regions where northers prevail (2).

Atmosphere, The effects of.—The pulmonic or respiratory class of affections are undoubtedly the representations of cold and *moist* climates distinctively. Blodget claims that there is strong ground for regarding diseases of the respiratory organs as the natural antagonist of the tropical forms of malarial disease so far as the United States are concerned, and that they are induced at the South largely by the intrusion of the *cold* latitude for a great portion of the year. . . . . All forms of diseases of the respiratory organs increase as the *temperature decreases*, with like conditions of humidity; and increase still more directly with the greater variableness of climate. Great variations of temperature and humidity in a climate generally cool and damp afford the conditions most extremely favorable (6). I think most intelli-

gent observers agree that the most unvarying temperature and moderately dry atmosphere, such as portions of Colorado, Wyoming, New Mexico, and Southern California possess, are the most favorable localities for consumptive patients.

Altitude, Its effects.—Dr. Parke says, "As a curative agent, *mountain air* ranks very high in all anæmic affections, from whatever cause" (19). "In the true Alpine region, tuberculous phthisis seems to be almost absent. It is of very rare occurrence among the priests on the Great St. Bernard. Patients affected with phthisis at Lima are sent to the adjacent mountains of Peru, where it is scarcely known at an elevation of about 8000 feet. It is described as very rare at Mexico, 7000 feet, and at Quito, 8700 feet. The elevation beyond which phthisis becomes rare, or is absent, seems to vary considerably in different latitudes. In Switzerland, between 46° and 48° N., the frequency of its occurrence diminishes above 3000 feet. In the Black Forest, between 47° and 49° N., above 2500 feet" (20). Fuch shows from extensive data, that in Northern Europe it is most prevalent at the level of the sea, and that it decreases with increase of elevation above a certain point. At Marseilles, on the seaboard, the mortality from this cause is 25 per cent.; at Oldenburg, 80 feet above the sea, it is 30 per cent.; at Hamburg, 48 feet above the sea, 23 per cent.; while at Eschweg, 496 feet above the sea, it is only 12, and at Brottnode, 1800 feet, only 0.9 per cent. (18).

It seems to be the general desire of physicians in these Northern States to get their consumptive patients out of our cold winter climate into a warmer one. While this is desirable, care should also be taken to find a spot that has not a variable temperature or great humidity. "Many localities of the southern interior, or where sandy surface, terebinthinate vegetation, and non-malarious waters exist, deserve more attention than they now receive, as resorts for invalids. In Texas and on the dry plains extremely favorable districts exist. Over the whole interior and Pacific region, these affections will be little known, and in Southern California the climate is far superior in this respect to any part of Italy. Equable in temperature, and at the same

time extremely elastic and dry, it cannot generate respiratory diseases" (6).

In the above notes I have, with a few exceptions, given the *conclusions* only of the observers, the limits of this paper not allowing room for the statistical figures, or the argument on subjects. On some of the points there is a great deficiency of notes. This is not from a want of appreciation of their importance, but from a dearth of statistics. I have consulted all the reliable authorities I could command, but have avoided any statistics of disease among troops, as not applying to general conditions.

Below will be found a list of authorities cited:

(1.) Haviland on "Climate, Weather, and Disease."

(2.) Disturnell on "Influence of Climate in North and South America."

(3.) Huebner on "Dysentery" (Ziemssen).

(4.) Annesley on "Diseases of India."

(5.) Haenisch on "Yellow Fever" (Ziemssen).

(6.) Blodgett on "Climatology of the United States."

(7.) Johnson's Physical Atlas.

(8.) La Roche on "Yellow Fever."

(9.) La Roche on "Pneumonia and Malaria."

(10.)

(11.) Dr. Barton's "Report on Sanitary Condition of New Orleans."

(12.) Flint's Practice of Medicine.

(13.) Hertz on "Malarial Diseases" (Ziemssen).

(14.) Dr. Drake on "Diseases of the Interior Valley of North America."

(15.) Liebermeister on "Typhoid Fever."

(17.) "Memoirs, etc., of the Mediterranean, by Rear Admiral William Henry Smith."

(18.) Fuch's Physical Atlas.

(19.) Dr. Parkes on "Practical Hygiene."

(20.) Dr. Herman Weber on the Swiss Alps.

IV.

BEARINGS OF CLIMATE ON THE CHOICE OF THE REMEDY.

By Lucius D. Morse, M.D., Memphis, Tenn.

The researches of modern science have shown very plainly the influence of environment upon the development of any given organism. Variations in the different races which make up the human family, furnish striking and pertinent illustrations of the modifications brought about by particular surroundings. The points of physical discrepancy, to say nothing of those of a mental or moral character, between the civilized European or American, and the savage Hottentot or Bushman of Southern Africa, are sufficiently apparent to the most superficial observer.

Among the innumerable influences which act and react upon life in its myriad forms, there are none more powerful than those of climate, even when that term is used in a restricted sense. Variations in temperature alone produce the most striking changes, even though other important factors remain practically the same. The amount of moisture in the atmosphere, average rainfall, the prevalence or absence of winds, electrical manifestations, character of the soil, everything which may be comprised under the general term climatology, become individually and collectively the potent elements for modifying the forms of inanimate as well as animate nature.

To the physician there is nothing more deeply interesting and, rightly considered, I might add, more important, than the study of those variations in disease, which are evidently the result of climatic influences. The diversity observable in the flora and fauna of different countries are not more marked than the diversity of those abnormal manifestations which, in the aggregate, make up the symptoms of disease. Those who have practiced

medicine in different regions of country, near or remote, have over and over again had practical and painful demonstration of this fact. The proper consideration of those influences, often subtle and occult, which are the efficient causes of this diversity of human ailments, has ever, in the history of medicine, characterized the philosopher, from the days of Hippocrates down to the present time. The self-satisfied follower of routine is blind to all save the more obvious elements in the problem of disease.

There are innumerable influences, subtle and mysterious, obeying laws but dimly understood, whose touch we cannot evade, which produce effects of the most startling character. Such are those hidden epidemic causes which periodically sweep over portions of the earth's surface, and such, pre-eminently, are those more constant elements of a malarial similitude which infect whole regions, with greater or less severity, from one year's end to another. Every medical man is familiar with the fact that during the prevalence of epidemics there is a tendency more or less pronounced, in all complaints to assume the livery of the dominant disease. If elements transient in their existence produce effects so marked, what should we not expect from the operation of those persistent ever-present influences tending to disease?

In many portions of our country, especially in the great Mississippi Valley, malaria is a constant factor. Whatever disease may be under treatment, it will be found that the usual symptoms are intensified, changed, overlaid, or, in some way, more or less modified by this subtle but powerful influence. Its most prominent symptom, that of periodicity, is often wanting, or at least so little marked as to escape the attention of both patient and physician. Malaria is capable of producing symptoms the most diverse and contradictory in character. The practitioner who fails to estimate at its true value this persistent force, will often prescribe with little satisfaction to the patient or to himself. He may be quite certain that the remedy chosen covers the symptoms, and he may prescribe it with confidence and the expectation of a brilliant cure, but over and over again he will find the symptoms at his next visit holding undisturbed sway. I have seen *Merc. cor.* or *Colocynthis* administered in dysentery according to their characteristic symptoms, and persisted in for

days without the least benefit, and have then witnessed a speedy and permanent cure brought about by a few doses of *China* or *Arsenicum*. I have seen a neuralgia promptly removed by the 1st, 2d, or 3d decimal trit. of *Quiniæ sulph.* after resisting all the usual remedies.

It has been the misfortune of homœopathy that most of its bookmakers have resided in regions practically *non-malarial;* otherwise we might have had more light thrown upon this vitally important subject. The radical changes that are brought about in the constitution by malarial influences, can be comprehended in their completeness by those only who have resided in regions where malaria holds constant sway.

How then shall diseases be treated in the face of such perturbing and persistent influences as are those of malarial origin? How shall the remedy be selected to remove aggregations of symptoms which seem specially calculated to puzzle and mislead?

It has need to be more generally learned that the so-called "key-notes" of drugs are not unvarying in value. The pathognomonic symptoms which, in one climate and under one set of surroundings, occupy, so to speak, a minor place, may, in a different climate and under other surroundings, move to the front and occupy the first rank in value.

My own plan, adopted to meet the difficulties suggested above, has been to make special and careful studies of those drugs which experience has proven to possess so-called "anti-malarial" properties. These are the first thought of and the first consulted on all occasions, no matter what may be the special form of disease. Except when strong epidemic influences prevail, overriding malarial tendencies, I am very apt to find what I want among this class of remedies. Might not a similar course be found useful in other regions where disease tendencies are of a different type?

In malarial regions diseases tend to the congestive form, and are usually rapid in their course. Low forms of fever are of rare occurrence. In West Tennessee, for instance, typhoid fever is practically unknown. This fact is in itself deeply suggestive. Malarial fever and typhoid fever might be set down as at the antipodes. The presence of the one usually means the absence of the other; yet, singularly enough, Northern soldiers doing

service in some portions of the South, during the civil war, suffered with a peculiar form of disease, a sort of hybrid, which physicians termed "typho-malarial" fever. It was simply a malarial fever grafted, so to speak, upon a typhoidal diathesis. I need hardly say that Southerners were exempt. The peculiar influences which produce the continued fever, are to the North what the malarial element is to the South.

The phenomena of acclimatization points directly to the existence of general tendencies to disease—tendencies climatic in their origin—all-pervading in their influence.

A wide field is open to the physician in learning the remedies which are, if I may be allowed the expression, homœopathic to the peculiarities of climate. This involves at last an intelligent and discriminating study of the Materia Medica.

For the finer shades of drug action there ought to be a separate proving for each climate and race of people. An almanac calculated for the meridian of Washington would hardly be correct for the meridian of San Francisco. So a proving made by a burly, phlegmatic, beer-drinking, tobacco-smoking German, could hardly be expected to fit at all points the light, mercurial, wine-drinking Frenchman.

The man who supposes that Hahnemann's *Symptomatology* accords with every medical meridian, or is to last forever, has simply a childlike and abiding faith in the stability and unchangeableness of sublunary things.

It will not do to take as implicitly true for your own station, the observations of the German, the Englishman, the Frenchman, the Italian, or the inhabitant of any other country. Such diverse observations may serve the purpose of mutual correction, and furnish a basis for generalization; but it rests with each individual physician to say whether he will practice medicine philosophically from deductions and observations true for his own medical meridian, to use again the figure employed above, or whether he will idly adopt a medical calendar calculated for a climate, a country, a people differing from his own. The one method simply requires blind faith in the dictum of the books; the other demands individual observation and experiment based upon the broad principles of climatology.

V.

CLIMATOLOGY OF THE SOUTH ATLANTIC STATES,

ESPECIALLY WITH REFERENCE TO LIFE INSURANCE.

By F. H. Orme, M.D., Atlanta, Ga.

The region herein designated as the *South Atlantic States*, comprises North Carolina, South Carolina, Georgia, and Florida. For general salubrity for the entire year, it is probably not surpassed as a region by any of equal extent on our globe. In a favored part of the temperate zone, it possesses a variety of climate, but in all parts of it there is that succession of the *four seasons* which is perhaps the most grateful of all to the human economy.

Within the limits of this region there are high and low lands, with the attending differences of climate, and an almost boundless variety of products, embracing, indeed, nearly everything which can be conceived of as conducive to a healthful and enjoyable existence. The climate of the coast is tempered in both winter and summer by proximity to the Gulf Stream, and the cool air of the mountains and highlands makes these parts favorite resorts in summer.

The exceeding richness of the *flora* of these States is noticeable in this connection, for the existence of valuable medicinal plants, together with a knowledge of their uses by the people, has much influence upon the general healthfulness.

From the *preliminary remarks* to the *Resources of the Southern Fields and Forests*, by Dr. F. P. Porcher, of Charleston, S. C., the following quotation is made:

"The State of New York, which is said to include an area equal to the whole of Great Britain, according to Prof. Lee (1848), out of a flora of 1450 species, contains but 150 known to be medicinal. Here, it will be observed, in a space at the South considerably smaller in extent, a much larger proportion exists. My sketch of the medical botany of South Corolina embraces a notice of 410 species out of about 3500, possessed of medicinal or economic value; including, however, among these, some few exotic or introduced. A single circumscribed locality in the lower section of the same State, but ten miles in diameter, furnishes one and one-third more than the whole of New York."

The region under consideration may be said to have a northwestern boundary of mountains—the Blue Ridge—which, with their outlying hills, cover one-half of the extent of North Carolina, South Carolina, and Georgia. There is probably no region more abundantly supplied than is this with *mineral springs* of every variety, many of them having wide reputation as curative in every form of affection which is ever benefited by a resort to these excellent natural remedial agents, and many thousands of the people annually experience their health-giving effects. The custom, now so general and beneficial in these States, of enjoying the invigorating air and other influences of these popular places of resort, is one well worthy of encouragement.

In a genial clime, with a prolific soil, it would be difficult to estimate the advantages to the mechanic, the agriculturist, or the resident generally, that pertain to these States as a place of abode. With seasons that allow of uninterrupted navigation of the rivers, and that are favorable to the prosecution of industrial occupations or the pursuit of pleasure during the entire year, it would be hard to find more favorable conditions for the easy procurement of a comfortable and healthful existence than are here found.

The cool temperature of the high regions, interchanging with that of the Atlantic Ocean and of the Gulf of Mexico, produces a variety and a frequency of changes (allowing of neither of the extremes of heat or cold), which are decidedly *conducive to health*, rather than injurious, as is the common but fallacious opinion of not only the laity but of a portion of the medical profession.

On this topic it may be remarked that those climates are most healthful which show frequent and moderate changes, as these are a natural stimulus to the system, the benefit of which has been experienced by all, with the changing seasons. Many persons are often improved by the change which may injure a few. Who, indeed, would wish to live in a changeless temperature, and become the subject of inertia such as is usually found in climates of this nature?

There are no climates known which are *absolutely* unvarying in temperature. Were such to exist, unthrift, stagnation and lethargy are the conditions which might be looked for among the people inhabiting them; while such would be the impairment of vitality that replenishment from other parts would be necessary to prevent the population from becoming extinct. A temporary residence in such a land might even be beneficial in some cases, but a permanent abode would be destructive of the natural vigor of man.

That changes of temperature are grateful and healthful to the human economy is proved by the genial and refreshing effect of a bath, cold or warm, according to the exigencies of the system, and by the frequency and benefit with which baths are resorted to in climates comparatively free from stimulating changes. A "sudden change" constitutes an air-bath—shocking if too great—but within moderate limits, even if temporarily uncomfortable to the feelings, sanatory in its influence. It is not only restorative but preservative of health.

Let any physician reflect upon his own experience, and he will find that while he is often met with the question, "Doctor, do not these changes give rise to a great deal of sickness?" and while he may, to avoid discussion, answer in the affirmative, it is often really *not so*. Apothecaries will also tell him that they as often do their largest prescription business after a long continuance of one sort of weather as well as during seasons of frequent changes.

A severe change even may occur sometimes, and if it does not last too long, no considerable sickness may arise; but if the severe weather lasts long, it gradually overtaxes the powers of endurance of the system, and sickness follows. Long winters

are more trying to the system than short ones, and so with summers; but of the two, long winters are the more hazardous to the vital organs.

Frequent changes of temperature are attended with *changes in the direction of the winds*, and these are preventive of sickness. There is reason for believing that if frequent changes in the direction of the winds could be effected, the most unhealthful localities could be rendered salubrious by the rapid dilution and dispersion of the morbific spores or influence, whatever it may be; for it is known that the worst forms of pestilences are often found to be connected with the prevalence of winds in particular directions. For example, the yellow fever epidemic of 1854 in Savannah, occurred after a *long continuance* of easterly winds, and advanced over the city from east to west. In 1858 the yellow fever commenced after a long continuance of westerly winds in the western portion of the city, and advanced eastward. In Augusta, in 1839, dry easterly winds, with almost unvarying temperature, prevailed through many weeks preceding the severe epidemic of yellow fever there. Many instances could be cited to show that it is after long prevalence of winds in one direction, over malarial districts, that sickness occurs. A change in the direction of the prevailing winds just before the time of the commencement of these epidemics, might have delivered Savannah and Augusta from those visitations; the only severe ones those cities ever had.

For these and other reasons which will readily occur to a reflecting person, variability of temperature is one of the most important sanatory influences, and is one which contributes, with others, to render the region of the South Atlantic States at least as healthful as that of any other known country of equal extent.

Notwithstanding this splendid and unexcelled, if not unequalled *entourage*, embracing every condition favorable to the well-being of our race, several Northern life insurance companies have withdrawn their agencies from this region, averring that their mortality was so great that they could not afford to do business in it.

This parting slur is of great importance, as its effect upon the

uninformed might work injury in various ways. The prospective immigrant, hearing of this, and believing the statement in its full import, might well hesitate about going to reside and rear his family in such a locality, for he would reflect that life insurance companies are *generally* careful in their examinations into such subjects, and act and make their statements with circumspection. Other life companies, too, might be deterred from entering a rejected field, being misled by such reports, while a damaging innuendo is implied against those companies which continue their business in it. The observations, therefore, in the remainder of this article, will have a bearing upon the justice of the charge referred to, and of the inferences to be drawn from it.

For convenience of comparison with the region above named, and to include a number of States in which a large amount of insurance is done by the Northern life companies, the region here designated as the *North Atlantic States* will include nine States, embracing the New England States, and New York, Pennsylvania, and New Jersey. This region is smaller in extent of territory by over 15,000 square miles, than is the region of the four South Atlantic States.

A reference to the *Vital Statistics of the United States Census for* 1870 will show the following percentage of deaths to the entire population of the States mentioned:

North Atlantic States.		South Atlantic States.	
Maine,	1.28	North Carolina,	0.98
New Hampshire,	1.85	South Carolina,	1.05
Vermont,	1.07	Georgia,	1.15
Rhode Island,	1.26	Florida,	1.21
Massachusetts,	1.77	Average,	1.09¼.
Connecticut,	1.26		
New York,	1.58		
Pennsylvania,	1.49		
New Jersey,	1.17		
Average,	1.35⅓.		

Thus it appears that while the percentage of the North Atlantic States (1.35⅓) is considerably *above* that of the whole United States and territories (which is 1.28), that of the South Atlantic States (1.09¼) is much more considerably *below* the

United States' percentage, certainly a very striking difference in favor of the South Atlantic States.

This, however, does not show the full advantage of the South Atlantic States as an insuring region, for it is to be remembered that a preponderance of the mortality, especially since emancipation, is among the colored population, among whom insurance is not done to an extent worthy of being taken into account. While the white population of the South Atlantic States numbers 1,703,120 to 1,444,295 colored, yet the deaths among the colored were 176.48 to 156.32 among the white. Here a difference of great importance, and one directly in point is shown; for it is really among the white or insuring class of the population that the comparison of the two regions is to be made.

This is not yet all that the *vital statistics* show in favor of the South Atlantic States, for when we come to observe with regard to special diseases, we find with reference to the disease that makes the heaviest assault upon life companies, *consumption*, the following ratio of deaths in 100,000 of the entire population:

North Atlantic States.		South Atlantic States.	
Maine,	318	North Carolina,	115
New Hampshire,	299	South Carolina,	93
Vermont,	216	Georgia,	75
Massachusetts,	353	Florida,	69
Rhode Island,	254	Average, 88.	
Connecticut,	227		
New York,	264		
New Jersey,	209		
Pennsylvania,	212		
Average, 261⅓			

Thus it appears that while the number of deaths from this destroyer in 100,000 of the whole United States and territories is 181.3, the number for the North Atlantic States is 261⅓, while for the South Atlantic States it is only 88. The importance of this enormous difference is enhanced when we recall the fact that a large and increasing number of pulmonary invalids annually come from the North Atlantic and other Northern States to die in the South Atlantic States, thus diminishing the ratio of loss from this cause in the former while it increases it in

the latter region. Notwithstanding this fact the difference will appear startling and almost incredible to one who has not investigated the subject.

The difference of ratio of deaths from consumption to total reported deaths between the North Atlantic States and the South Atlantic States, is not so great in 1870 as in 1860, as by the census of 1860 we find that the ratio of deaths from this disease to total reported deaths is, for the North Atlantic States (New Jersey omitted in the census), 23.2, while in the South Atlantic States it is but 5.6. This difference between 1860 and 1870 may at least in part be accounted for by the increased influx of pulmonary invalids to the South during the decade.

It is a fact which it will doubtless surprise many to learn, that the ratio of deaths from consumption among the *colored* of the South Atlantic States is in excess of that of the *whites*, notwithstanding the great number of whites who seek health in the South from various regions where the climates are more rigorous, and who are often even in a moribund state, whose deaths swell the total of deaths from this disease among the whites.

From a "Tabulated Mortuary Record of the City of Savannah, from January 1st, 1854, to December 31st, 1869, compiled from the reports on file in the Mayor's Office," by W. Duncan, M.D., a valuable pamphlet for study by life insurance officers, is quoted the following:

"Attention is specially directed to the table showing the nativities of all white persons who have died of consumption; the number of such deaths being 692. Of this number 178 were natives of Georgia, showing that nearly three-fourths of the deaths from this disease have been persons other than natives of this State."

In passing, it may here be remarked that this low rate of mortality from consumption in the South will show to any discerning medical examiner the impropriety of regarding the blemish of a spitting of blood or a cough years before, as of the same gravity when occurring at the South as at the North. It is a common occurrence in the Southern States to meet with persons who have had these and other indications of pulmonary

trouble in early life, who have entirely overcome them, becoming robust and living to old age. Whatever it may be in other regions, in the South Atlantic States *tuberculosis* is an affection the progress of which is frequently arrested.

As regards diseases of the brain, heart, and lungs, the statistics show a preponderance at the North over the South, owing, doubtless, to rigor of climate, while the only notable preponderance of mortality at the South is from fevers and diseases of the bowels, and from conditions, such as dropsy, following them. It may be fairly claimed, however, that these fevers are *avoidable diseases* as compared with those of the brain, lungs, and heart, as the severe forms of fevers and bowel affection occur in localities which are known to be unhealthful, and are consequently avoided, especially by the insuring class.

An exaggerated idea of the liability to and the fatality of fevers in the South exists with many Northern people. Many years ago, before hygienic measures were understood as they now are, when malarial districts were more extensive and less well known, severe fevers were more common; and the traditions of those times seem to be perpetuated by many still.

It is even thought that epidemics are frequent in Southern cities. A few words will suffice to show that there is an exaggeration here also, especially as to the effect upon life insurance companies. Take Savannah for example. Yellow fever is the only destructive epidemic disease (with the exception of one season, not very severe, of cholera), from which that city has ever suffered. We are told by a note in *White's Statistics of Georgia*, that the disease made its first appearance there (we are not told to what extent) in 1817. It was there again in 1820; but the only severe epidemics were in 1854 (625 deaths), and 1858 (112 deaths), and there has been *none since*. It would be hard for life insurance companies to show that they suffered excessively even from these.

"The statistics of the health of Savannah will compare favorably with those of any city in the United States. The most sickly part of the year is during the winter months."—*White's Statistics of Georgia.*

The above remarks, with slight modification, will also apply

to Charleston. It must be remembered, too, that the South does not abound in large cities, which epidemics affect.

It is well known that the class of people who principally embrace life insurance are the prudent and well-to-do—those who are able to select the most healthful locations for their abodes, who are occupied with the least injurious employments, and such as are attended with the least exposure to pernicious influences, who generally fly at the approach of an epidemic, or are at least able to surround themselves with the most favorable circumstances; in a word, those who suffer least, and, indeed, scarcely at all, in case of these rare visitations.

Another exaggerated view entertained by many Northern people, life insurance men included, is with reference to the difficulties attending *acclimation*. While some consideration is due this subject, there has certainly been excessive stress laid upon it, and, from misapprehensions, its importance has been greatly overestimated.

Acclimation consists, after all, not so much in the exposure of the person for a certain length of time to the atmospheric and other local influences of a certain region, as in a ready adaptation to the habits of life which long and often costly experience has taught the people of each locality to adopt. And herein lies a difficulty with many coming South. There is a type of man who carries his habits of thought and his habits of life with him wherever he goes. However distant or different the clime, he will build his house and arrange all his domestic appointments as he was in the habit of doing under other conditions; and serious, sometimes, are the consequences of this persistency. Adaptation to one's environments is the rule of life in hygiene, as in the political and social life of every enlightened individual; and it is only under penalty that this rule can be infringed.

There are many individuals known to all as cosmopolitans, who pass, at all seasons and without hesitation, from one region of the globe to another—from polar to tropical parts—and are "acclimated" at once by their facility of adaptation to the circumstances under which they find themselves placed; and this fact alone should be sufficient to calm, to a great extent, the apprehension of danger in coming South. The truth is, there is

too little examination into these matters; too little exercise of thought, and too credulous a following of old traditions.

There is, in fact, no reason why any one accustomed to adapt himself to changes of circumstances, may not travel from any part of the North Atlantic States to almost any part of the South Atlantic States, at any season of the year, without any considerable danger to health. It will only be necessary to avoid certain circumscribed localities, commonly known as malarious, and consequently avoided by those living in their vicinity at certain seasons. Indeed, there are those who constantly do thus travel, and who ridicule the idea of there being any hazard in it. And what can life insurance companies show to the contrary? If there are some dangerous localities, are individuals not likely to use quite as much caution on their own account as the companies would desire them to use on theirs? Are men rendered rash by having life policies? Do they rush any sooner into noxious places because they have been so prudent as to insure? Or is there a fear of "masked batteries" of malaria for the policy-holder which will not be pointed out by residents?

It should be remembered that miasmata are not aggressive, but confine themselves generally to the localities in which they are generated. They prowl not, but, like the spider, await invasion of their abodes. A distinction should be made and borne in mind between endemic miasmata, which are not transportable to any very considerable degree, and those specific pestilential epidemics which are not only readily transportable, but which often seem to take a line of march as an invading army—as cholera, for example, which, like death, has all seasons for its own, and has been known to visit high latitudes in midwinter.

As a matter of fact there are but few localities which are really malarious in the South Atlantic States; and these, from cultivation, etc., are rapidly diminishing in number and extent. Beside, it is only at certain seasons that miasmata are active at all; and all these points are well understood by the denizens of the country. Places once known as sickly have become salubrious. Even in what are regarded as sickly sections there are healthful points, near which are selected places for the erection of habitations. In a word, the healthful points are occupied, while the

unhealthful are avoided; so that fevers, especially the destructive kinds, which produce a considerable proportion of the deaths in the South among the negligent, are really among the most readily avoidable diseases, and *are* avoided to a large degree by the careful and insuring class. These matters are better understood now than formerly when the traditions with regard to the healthfulness of the South originated.

But, beside the increasing healthfulness of the country, there is another and still greater change which has taken place to the advantage of the people. It is the change in the course of medical treatment. The heavy-handed system of dosing and depletion (bleeding, blistering, purgation, salivation, etc.) of a half or even a quarter of a century ago, which destroyed far more than did any influence which pervaded the atmosphere—the harmfulness of which is now recognized by all classes of physicians—has given place, from causes which I shall not now discuss, to a milder and more beneficent and successful course; so that deaths from fevers (which are themselves thought to have grown milder in type) are rare as compared with those of former times. Have all these points received the attention they deserve?

While the comparisons drawn from the *Vital Statistics of the United States Census*, and given in this paper, are of the highest importance, and are directly in point, there is still another comparison which may be made which it would seem should cover the whole ground of the question as to the comparative healthfulness of the two regions considered. It is in the table showing the number of persons living at the age of one hundred years and over in each 100,000 of the *native* population, by which it will be seen that the average percentage in the North Atlantic States is but $2\frac{3}{5}$, while in the South Atlantic States it is $24\frac{3}{4}$. The rate for the United States and Territories is 9. It is the same for the *aggregate* population, while in the North Atlantic States it is $2\frac{8}{9}$, and in the South Atlantic States it rises to 28.

This higher rate of the *aggregate* over the *native* population shows that the South Atlantic States is a better region for immigrants than the North Atlantic States. Could any facts having a bearing upon the question speak more loudly and decidedly than these?

How is it, then, that the withdrawing life insurance companies can complain of excessive mortality in these States? Manifestly the reasons for *their* heavy mortality, if experienced, must be sought for in other directions than in the unhealthfulness or mortality generally in this region, and the subject is worthy of investigation.

At the "Convention of Southern Life Companies," held at Bath Alum Springs, Virginia, in June last, the subject was under discussion, when Professor Elizur Wright, one of the highest authorities in life insurance matters, remarked that he (quotation from the report) "had noticed that Northern companies were withdrawing from the South. The *real* cause of this action he believed was the expensiveness of the agencies. Agencies at the South have cost more than at the North, and as a general thing policy-holders have not stuck so well to the companies. Perhaps the Northern companies have raised the rates for the Southern States not so much on account of the necessity of advancing rates, but that they might retire with more apparent credit and honor. He continued with great force this line of remarks, and urged the companies to reform their agencies, only retaining honest and truthful men," etc.

During the discussion, Colonel Fowler, of the *Alabama Gold Life*, remarked: "One great blunder of many companies has been the incautious selection of risks. There are other matters to be looked after in addition to the consideration of propositions looking to the advance of premiums. We must see that no needless waste of funds occurs at home offices or in agencies; must purge the agency system, and the system of medical examination, and teach our examiners that they are not the servants of the policy-holders." In answer to the question, "Do you think all the bad agents and examiners are in the South?" he further said: "By no means. But this is true: the older Northern companies with large experience got rid of the worthless agents, and they in many instances drifted South, and found employment because they were familiar with the life business, and were unknown to the officers who employed them. We are learning to cull and weed out the agencies. Certain of my agents seem to carry a miasmatic influence with them wherever they go, and

send in a greater proportion of death claims, though they may occupy the most unexceptionably healthy sections in America, whereas other agents, not so favored in locality, yet as successful in securing business, rarely report a loss."

Col. Carrington, President of the *Piedmont and Arlington Life* (in the chair), "begged the indulgence of the Convention to state that, from his observation of the business of Northern life insurance companies doing business in the Southern States, and from the most accurate and reliable data at his command, he was led to believe that the mortality of those companies was not so great as reported, nor in the whole due to the cause usually assigned. There are facts patent that overthrow this theory. They have not secured risks in sufficient numbers of the acclimated citizens, in the large healthy sections of the South, from which to form any just conclusions in regard to mortality rates. The prejudices, if no higher motives, lead the people of the South to patronize their own companies, and in a great measure the Northern companies insure in the South a large proportion of citizens not thoroughly acclimated, and the mortality among this class of the assured is above the average mortality of the South, and should not be adduced as a guide to the mortality rates of this section.

"The method adopted by the Northern companies in establishing agencies in the South, had much to do with their withdrawing from this territory. In entering into competition with the home corporations, they had sought to secure influence by employing men who had gained prominence in the South, and generally for eminent services in the military service of the Southern States, and have in many instances paid for these names and titles enormous salaries, or allowed excessive commissions, and failed to receive an equivalent for the outlay. A slight mortality, with this item of expenses, has led in a great measure to the opinion that the Southern business was not remunerative." And he concluded, that "if the Northern companies were driven from the Southern States, or brought to disaster in this section, other reasons must be found than those generally adduced; there was no evidence that the misfortunes of these companies were due to extra mortality, but were mor

readily traceable to the extravagance in conducting their business in the South."

These distinguished life insurance officials have certainly pointed out correctly the trouble with the withdrawing companies. Any one who has observed the manner in which many agents of Northern companies in the South have flitted from one company to another, carrying their assured with them, can well understand this. At such a distance from the field, it has been difficult for the Northern companies to have the close supervision of their business which its successful prosecution requires; and they have in many ways, almost unavoidably, been imposed upon so as to become loaded with an unusual proportion of badly selected risks. Mismanagement of their own, therefore, rather than heavy mortality in the South, is properly chargeable with any excessive death-rate which *they* may have experienced.

One singular feature in the management of some Northern companies which may be noticed in this connection is, that they prescribe the fee which agents shall pay, in all cases, for examinations—as if physicians did not determine their own fees, and as if fees did not greatly vary with localities. It has happened that Northern companies have fixed upon a fee which no *reputable* physician in Georgia, for example, would accept. This would necessarily throw these companies into the hands of such physicians as would accept *any fee*—which sometimes suits the agents admirably, but is ruinous to the companies; and to this fact, perhaps—yes, certainly—is due a considerable part of the loss which has been suffered from want of proper management in this department. God help the life companies which are dependent upon the skill and honor of such physicians for their protection! Companies that have not yet done so, will have to learn that they *must* have the best examining skill, and must pay such fees as are customary in each locality among the best class of physicians. It is only in this way that they can avoid the dishonorable class who will and *do* collude with agents.

Having shown that statistics, the most comprehensive and authoritative obtainable, demonstrate the healthfulness and desirability of the South Atlantic States as an insuring region (to

say nothing of other facts and arguments presented), and having accounted for the failure of the withdrawing companies, it remains only to state that the records of those companies now doing a successful business in these States by reason of *judicious management*, substantiate the statistics and the remarks presented by showing a low rate of mortality, and especially by showing a comparatively light rate from those diseases *supposed* to be inimical to life insurance companies, but which are held to be comparatively *avoidable diseases*.

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